DVD Portable Player DCP850

All version

Service
Service
Service

Service Manual

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3141 785 31652

Version 1.2

PHILIPS

1.0 TECHNICAL SPECIFICATION

General

Dimensions (W x H x D):	210 x 39 x 178mm
Weight:	1.1kg
Power supply:	DC 6.2-15.0V
Power consumption:	9W
Operating temp. & RH:	-10-50degC / 40-90%
Video System	NTSC / PAL / AUTO
Audio System	
Output voltage 1kHz:	2+/-0.2V
THD 20-20kHz (%):	</=3%
Dynamic range:	>/=70dB
Signal/Noise ratio:	>/=70dB
Frequency response (20-20kHz):	+/-1dB
Channel Separation 1kHz	>=60dB
Channel Balance 1kHz	<2dB

Current consumption

DC-IN SUPPLY (9V)	
Battery Charging Current	450 +/- 50mA
BATT. SUPPLY	
Power Off	
Playback with TFT on	
Playback without TFT on	
Playback time	

Headphone out (headphone output load 2x16 ohm)

Maximum output power:	10mW
Frequency response:	+/-1dB
SNR (A-wght):	>70dB
THD (0.2-20kHz):	1%
Left-Right Channel Separation:	>/=50dB
Left-Right Channel Balance:	</=1dB

Supported disc type

Video Playback Formats:

Audio Playback Formats:

Playback disc type:	DVD, Picture-CD, SVCD, Video CD, MP3-CD, CD-R/CD-RW, WMA-CD, DVD-R, DVD-RW, DVD+R, DVD+RW, SD/MMC Card
Video Playback Format:	DVD / VCD / JPEG / MPEG4 / DIVX3,4,5,6
Audio Playback Format:	CD/MP3, MP3-DVD, WMA
Disc Diameter	12cm

Pixel specification

Zero bright-dot & max. 3 dark-dots

Factory Service Mode (FSM)

To check the software version and change region code of your DVD Portable

1. Power ON the DVD player and open the DVD door
2. Press the “SETUP” button on remote control, then select the “Preference MENU”
3. Press the remote button in the sequence as
   9 -> 6 -> 5 -> 3
4. The LCD display showed the existing region code. Press ▲ (navigation up) or ▼ (navigation down) repeatedly to select the number from 0 to 6.
5. Refer below table for your region code setting

Region Code	Region
1	USA
2	EUROPE
3	ASIA PACIFIC
4	AUSTRALIA, NEW ZEALAND, LATAM
5	RUSSIA, INDIA
6	CHINA

Select “0” setting = Region Free (confidential)

Procedure on how to upgrade the software of the DVD Portable

*For the best performance of your DVD Portable. Check **www.philips.com/support** for latest software upgrades available.*

A) By CD-ROM

1. Download the “PHILIPS.BIN” file from the Philips support site
2. Unzip the file and then burn it into a CD-ROM to make a disc for upgrade

3. CD-ROM disc name must be “PHILIPS” (otherwise it will not be recognized as a disc for upgrade)
4. Power on the Portable DVD Player with AC/DC adaptor
5. Play CD-ROM for firmware upgrade

Warning: Do not unplug the AC adaptor during firmware upgrade to prevent flash corrupt of the set!!

6. Once upgrade is completed, the player will restart automatically and observed PHILIPS LOGO on the screen.
7. Open the DVD door to remove the disc

B) By SD/MMC Card

1. Download the latest “PHILIPS.BIN” from the Philips support site
2. Unzip the files and then copy into SD/MMC Card for upgrade
3. Power on the Portable DVD Player with AC/DC adaptor
4. Change the set from DVD mode to Card mode by press the “Card” button on remote control
5. Insert the SD/MMC Card on the card slot
6. The set will automatically upgrade

Warning: Do not unplug the AC adaptor or remove SD/MMC Card during firmware upgrade to prevent flash corrupt of the set!!

7. Once upgrade is completed, the player will restart automatically and observed PHILIPS LOGO on the screen.
8. Remove the card from the set

Note: If you want to use the same card for audio / video playback on the set, please delete the “PHILIPS.BIN” first. Otherwise, it will be recognized as for software upgrade again.

2.0 SAFTETY INSTRUCTIONS

GB **WARNING**

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

ESD

NL **WAARSCHUWING**

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

F **ATTENTION**

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

D **WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kan die Lebensdauer drastisch reduzieren.
Veranlassen Sie, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand verbunden sind mit dem gleichen Potential wie die Masse des Gerätes.
Bauteile und Hilfsmittel auch auf dieses gleiche Potential halten.

I **AVVERTIMENTO**

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

GB

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified, be used.

NL

Veiligheidsbepalingen vereisen, dat het apparaat bij reparatie in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

F

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utiliséés les piéces de rechange identiques à celles spécifiées.

D

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Original zustand des Geräts darf nicht verändert werden; für Reparaturen sind Original-Ersatzteile zu verwenden.

I

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

"After servicing and before returning set to customer perform a leakage current measurement test from all exposed metal parts to earth ground to assure no shock hazard exist. The leakage current must not exceed 0.5mA."

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

GB **Warning !**

Invisible laser radiation when open.
Avoid direct exposure to beam.

S **Varning !**

Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

SF **Varoitus !**

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen!

DK **Advarse !**

Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

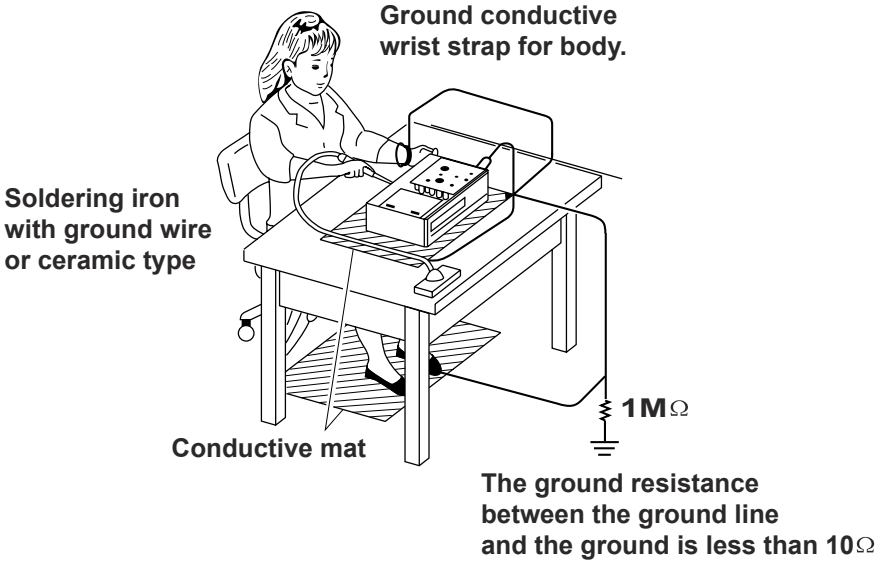
2.1 ESD PROTECTION

- レンズには絶対に触れないでください。
- DO NOT TOUCH THE LENS.
- LINSE NICHT BRÜHREN.
- NE PAS TOUCHER LA LENTILLE.

When the power supply is being turned on, you may not remove this laser cautions label. If it removes, radiation of laser may be received.

PREPARATION OF SERVICING

Pickup Head consists of a laser diode that is very susceptible to external static electrocity.
Although it operates properly after replacement, if it was subject to electrostatic discharge during replacement, its life might be shortened. When replacing, use a conductive mat, soldering iron with ground wire,etc. to protect the laser diode form damage by static electricity.
And also, the LSI and IC are same as above.



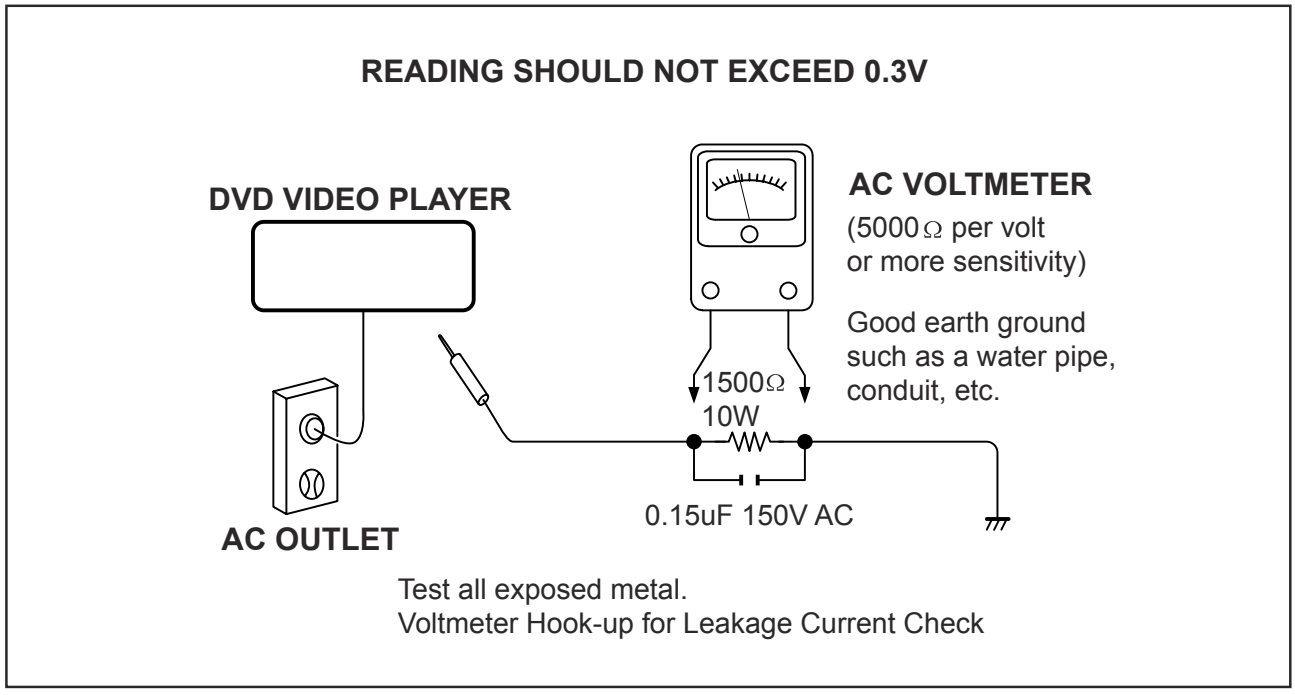
SAFTY NOTICE

SAFTY PRECAUTIONS

LEAKAGE CURRENT CHECK

Plug the AC line cord directly into a 120V AC outlet (do not use an isolation transformer for this check). Use an AC voltmeter, having 5000Ω per volt or more sensitivity. Connect a 1500Ω 10W resistor,paralleled by a 0.15uF 150V AC capacitor between a knomn good earth ground (water pipe, conduit, etc.) and all exposed metal parts of cabinet (antennas, handle bracket, metal cabinet screwheads, metal overlays, control shafts, etc.).

Measure the AC voltage across the 1500Ω resistor. The test must be conducted with the AC switch on and then repeated with the AC switch off. The AC voltage indicated by the meter may not exceed 0.3V.A reading exceeding 0.3V indicates that a dangerous potential exists, the fault must be located and corrected. Repeat the above test with the DVD VIDEO PLAYER power plug reversed.
NEVER RETURN A DVD VIDEO PLAYER TO THE CUSTOMER WITHOUT TAKING NECESSARY CORRECTIVE ACTION.

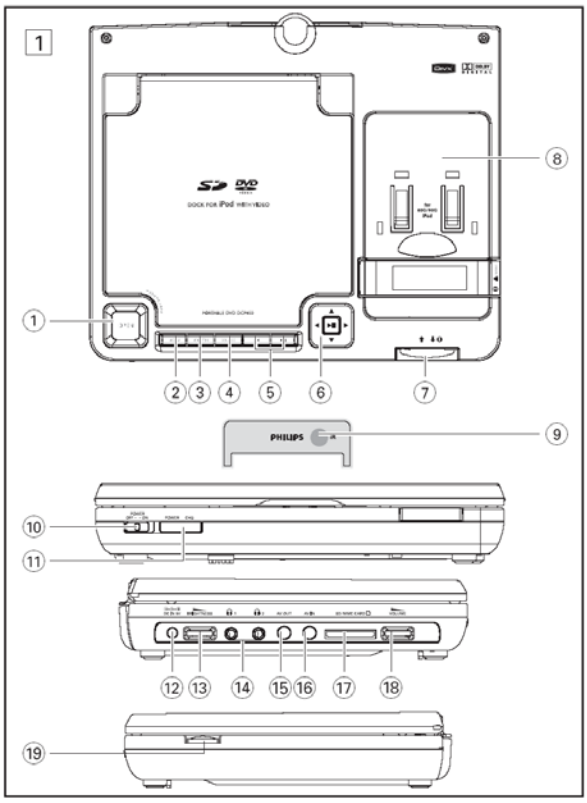


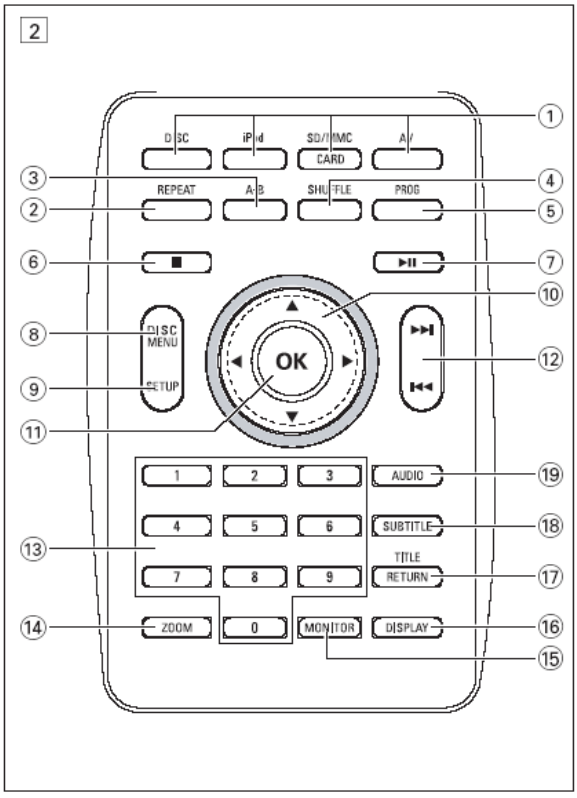
Test all exposed metal.
Voltmeter Hook-up for Leakage Current Check

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

3.0 INSTRUCTION FOR USE





Main unit controls (see figure 1)

① **OPEN** .....Open the disc door to insert or remove disc.
② **MENU**.....Display the MENU page.
③ **MONITOR**.....Switch the aspect ratio between 16:9 or 4:3.
④ **SOURCE**.....Select respective sources: DISC, iPod, SD/MMC or AV.
⑤ ⏮ / ⏭ .....Skip to the previous/next chapter, track or title.
⑥ ▲, ▼, ◀, ▶ .....Navigate in a menu.
.....(◀ / ▶) search backward/forward in a disc at different speeds.
⏯ .....Start or interrupt playback.
.....Confirm a selection.
⑦ ⏏ .....Push in to connect with a well placed iPod player or pull out to disconnect it.
⑧ **DOCK for iPod**.....Place an iPod player.
⑨ **IR**.....Remote sensor.

Front of player (see figure 1)

⑩ **POWER ON/OFF**... Switch the power on/off.
⑪ **POWER and CHG**...Power and charge indicators.

Left of player (see figure 1)

⑫ DC IN 9V .....Power supply socket.
⑬ BRIGHTNESS .....Finetune the TFT screen brightness.

⑭ 🎧1 🎧2 .....Headphone jacks.
⑮ **AV OUT**.....Audio/Video output jack.
⑯ **AV IN**.....Audio/Video input jack.
⑰ **SD/MMC CARD**.....Insert an SD/MMC card.
⑱ VOLUME .....Volume control.

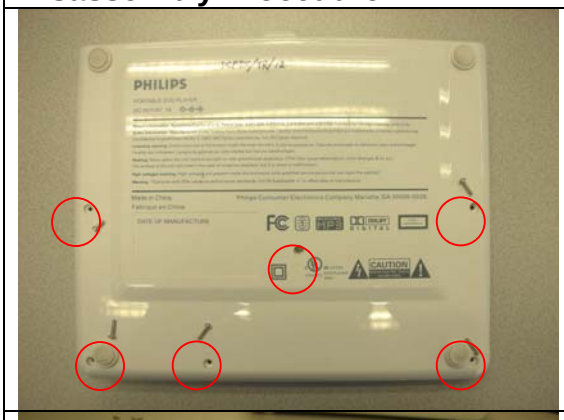
Right of player (see figure 1)

⑲ ⏏ **EJECT**.....Lift up this handle to eject the iPod player with video.

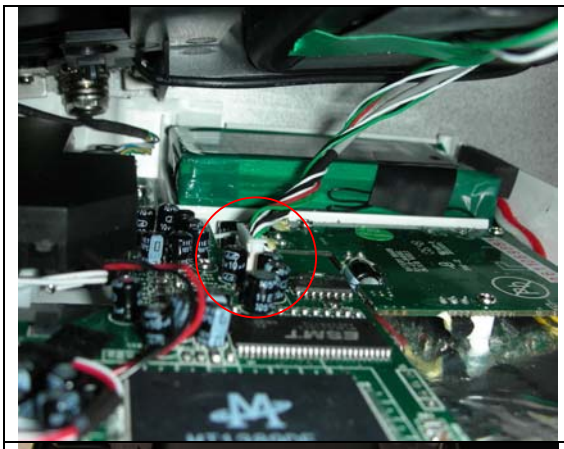
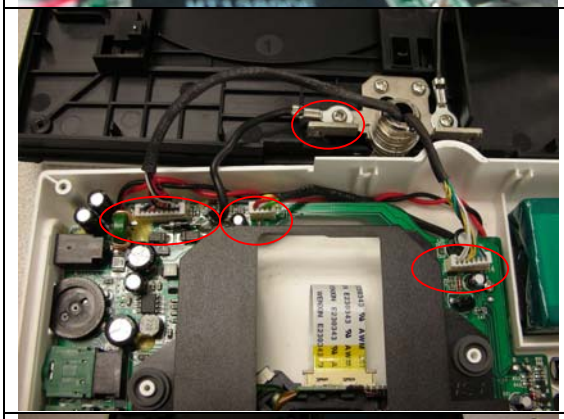
Remote controls (see figure 2)

① **Source keys** .....Select respective sources: DISC, iPod (iPod with video), SD/MMC CARD or AV.
② **REPEAT**.....Repeat a chapter/track/title.
③ **A-B**.....Repeat playback of a specific section on a disc.
④ **SHUFFLE**.....Play a disc randomly.
⑤ **PROG**.....Enter the program menu.
⑥ ■.....Stop playback or erase a program.
⑦ ⏯.....Start or interrupt playback.
⑧ **DISC MENU** .....Enter or exit the disc contents menu.
⑨ **SETUP**.....Enter or exit the system menu.
⑩ ▲, ▼, ◀, ▶ .....Navigate in a menu.
.....(◀ / ▶) search backward/forward in a disc at different speeds.
⑪ **OK**.....Confirm a selection.
⑫ ⏮ / ⏭.....Skip to the previous/next chapter, track or title.
⑬ **Numeric Keypad (0-9)**...Input numbers.
⑭ **ZOOM**.....Enlarge or reduce a picture or active image on the TFT.
⑮ **MONITOR**.....Switch the aspect ratio between 16:9 or 4:3.
⑯ **DISPLAY**.....Display information on TFT during playback.
⑰ **TITLE/RETURN**.....Display the disc title or return to the previous level of the VCD disc menu.
⑱ **SUBTITLE**.....Select a subtitle language.
⑲ **AUDIO**.....Select an audio language when playing a DVD disc or select an audio mode (Stereo, Mono-Left or Mono-Right) when playing a VCD/CD disc.

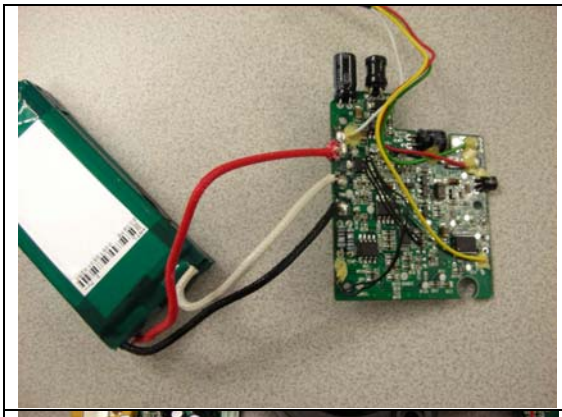
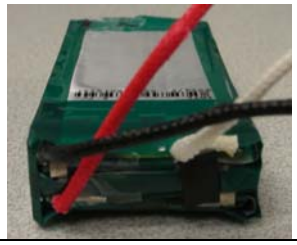
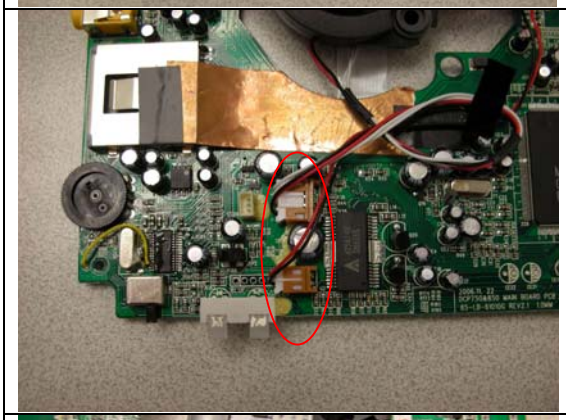
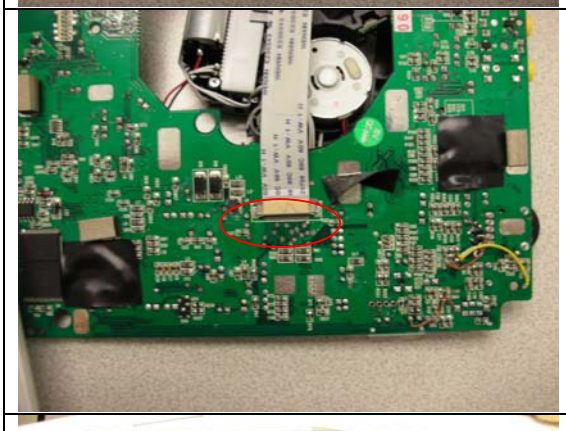
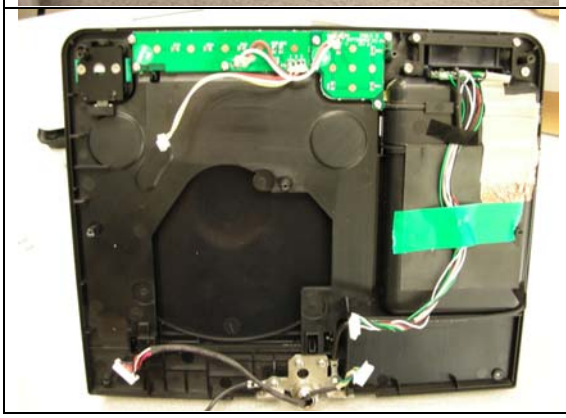
4.0 MECHANICAL INSTRUCTION

Disassembly Procedure		
	1	Remove 6pcs of screws on front side of bottom cabinet. (Please note the left hand side screw is shorter than others, make sure do not put long screw during re-assembly, otherwise it will damage the middle cabinet!)
	2	Remove 2pcs of screw on top side of bottom cabinet.
	3	Remove 2pcs of screws on middle cabinet.
	4	Open the bottom cabinet carefully, unplug the wire connector of key board from the main board. (left bottom side)

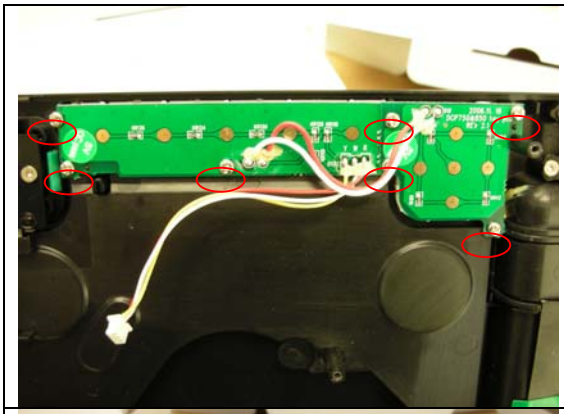
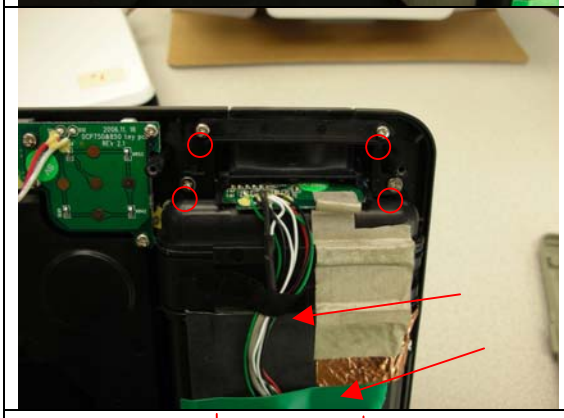
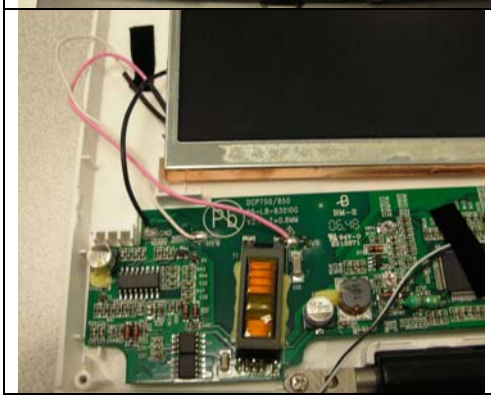
4.0 MECHANICAL INSTRUCTION

	5	Unplug another wire connector of Ipod board from main board. (right top side)
	6	To remove main board from cabinet, unplug / disconnect the wires on top side first.
	7	And then remove all screws on main board connected with bottom cabinet.
	8	To remove battery board and battery from cabinet, remove the screws on battery board connected with bottom cabinet first, and then pull out the battery from taped foam carefully. Make sure battery without damage.

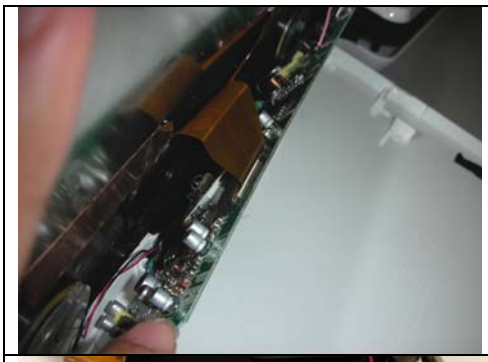
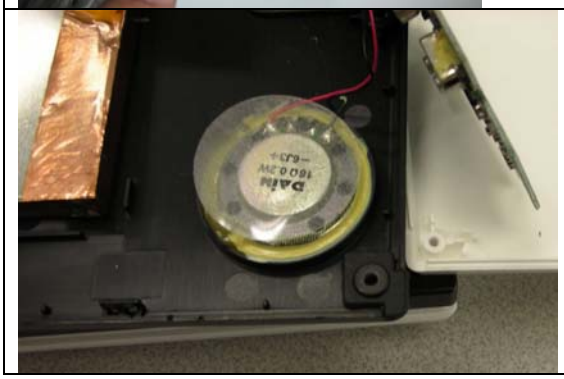
4.0 MECHANICAL INSTRUCTION

	9	Be careful not to broken the wire connection between battery and battery board. Otherwise you can re-soldering them as shown in picture. 
	10	To remove DVD loader, unplug the wires connected with main board.
	11	And then remove the flex cable on the bottom side.
	12	The middle cabinet ass'y overall

4.0 MECHANICAL INSTRUCTION

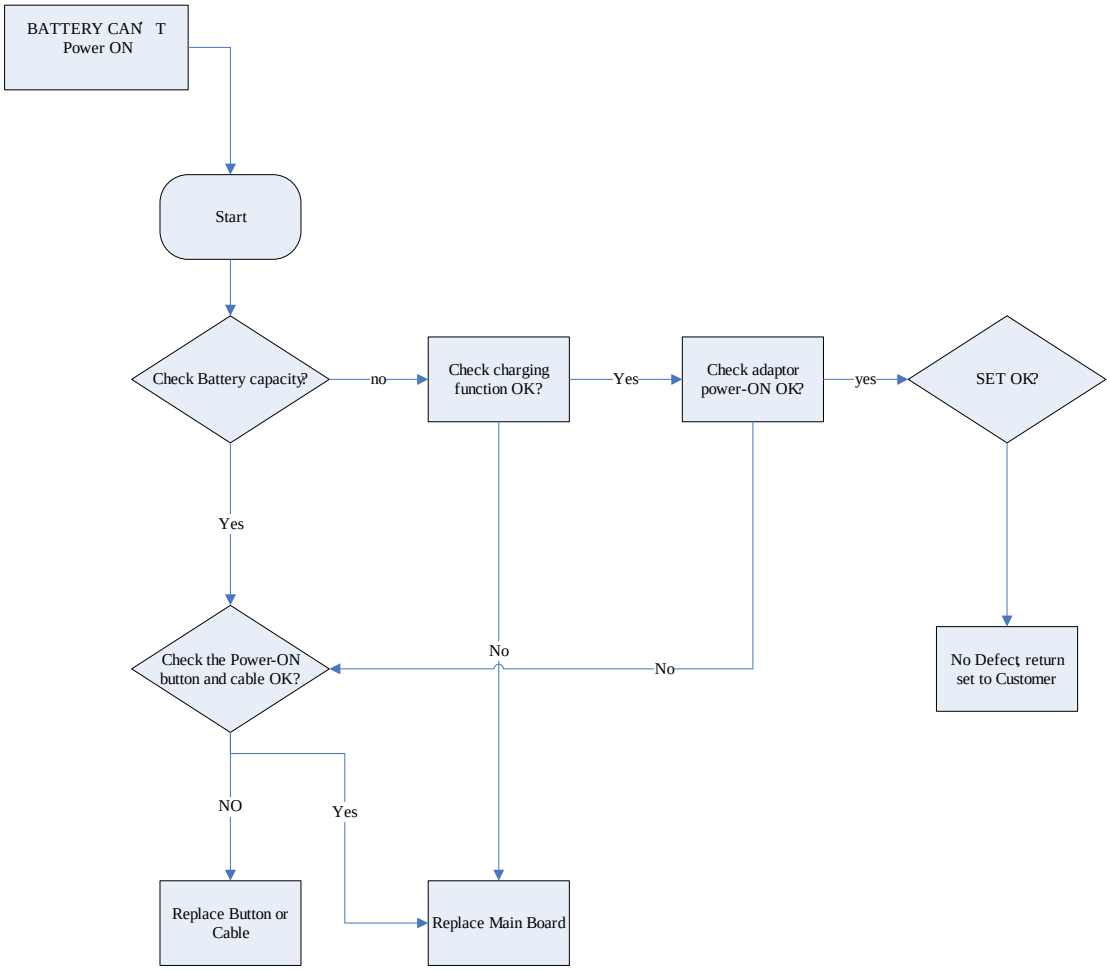
	13	To remove the key board, remove the screws as shown in picture.
	14	To remove the Ipod board, remove the screws on slider cover and then remove some tapes attached on middle cabinet and wires.
	15	To remove front cabinet, remove the screw on display frame first. Carefully open the display frame with the catches by screwdriver. (There are six catches as shown in picture)
	16	To remove the TFT, de-soldering the wire connected between TFT and TFT board first. (Please note the wire location as shown in picture during re-assembly)

4.0 MECHANICAL INSTRUCTION

	17	Unplug the flex cable connected with TFT board at the backside also.
	18	To remove the TFT board ass'y, de-soldering the wires between speaker and TFT board. (Black wire is connected to "-ve" port and red wire is connected to "+ve" port)

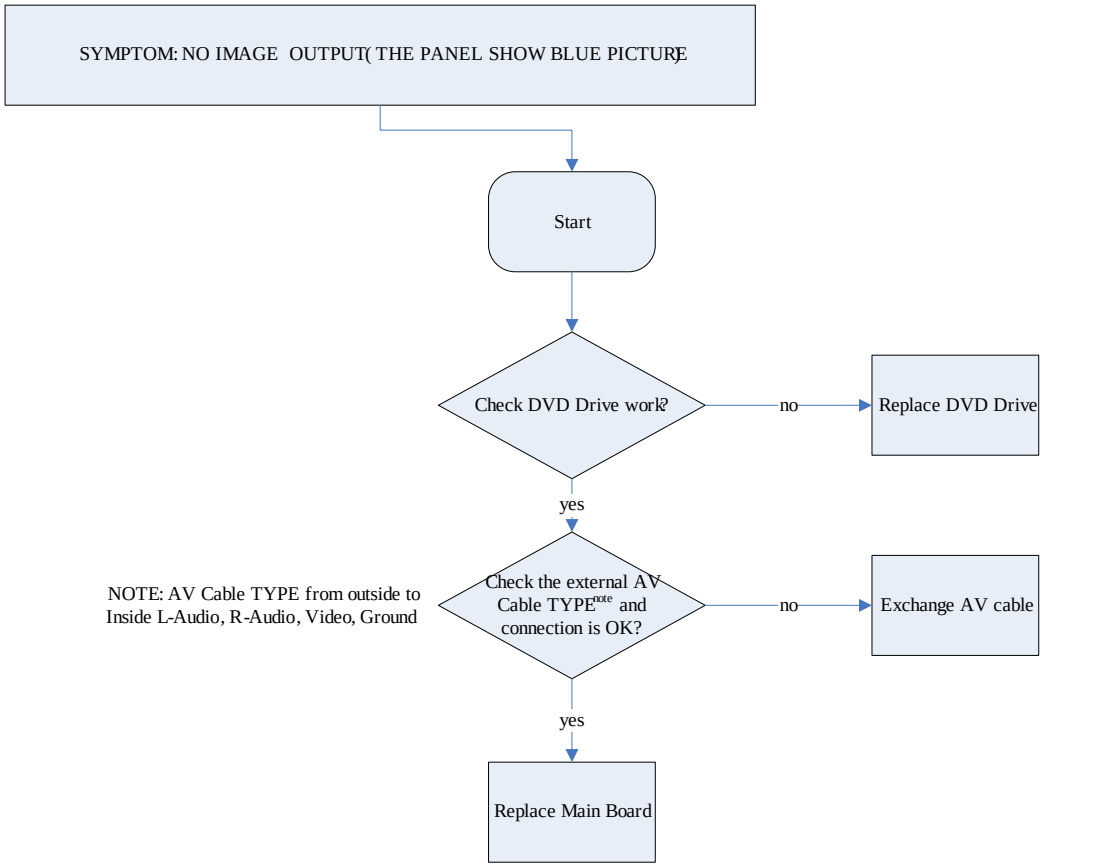
5.0 TROUBLESHOOTING

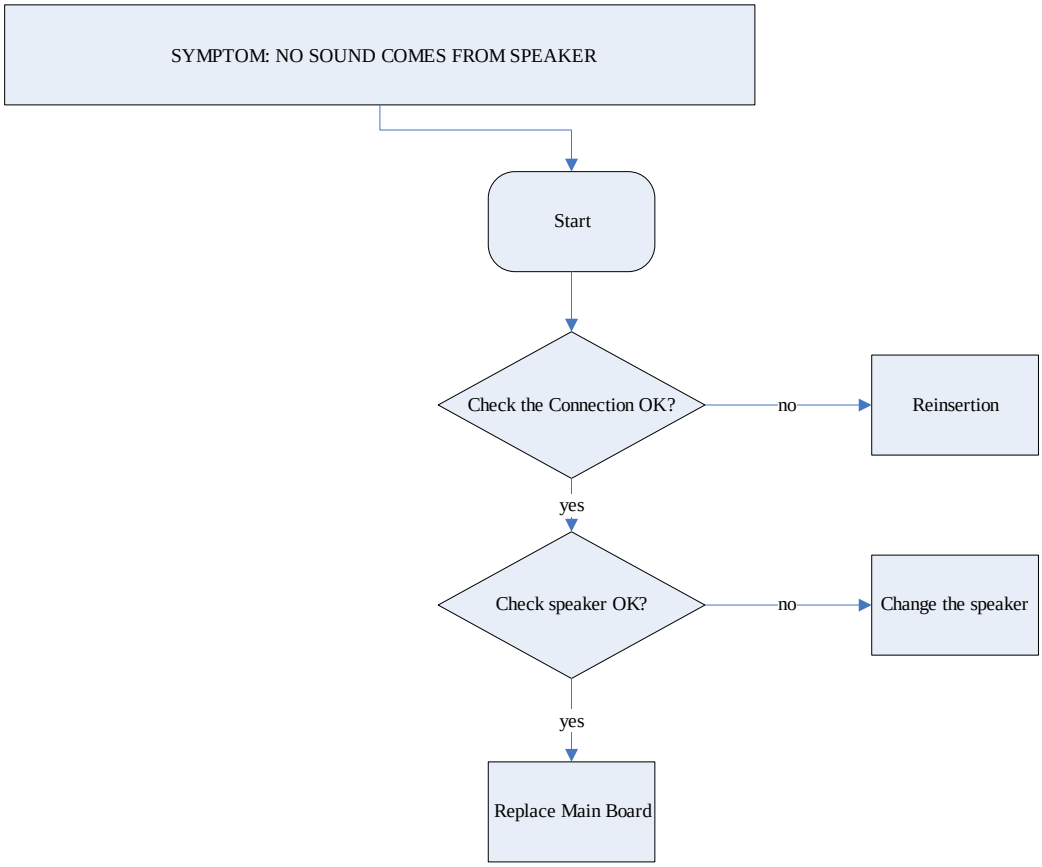
SYMPTOM: BATTERY NO POWER



5.0 TROUBLESHOOTING

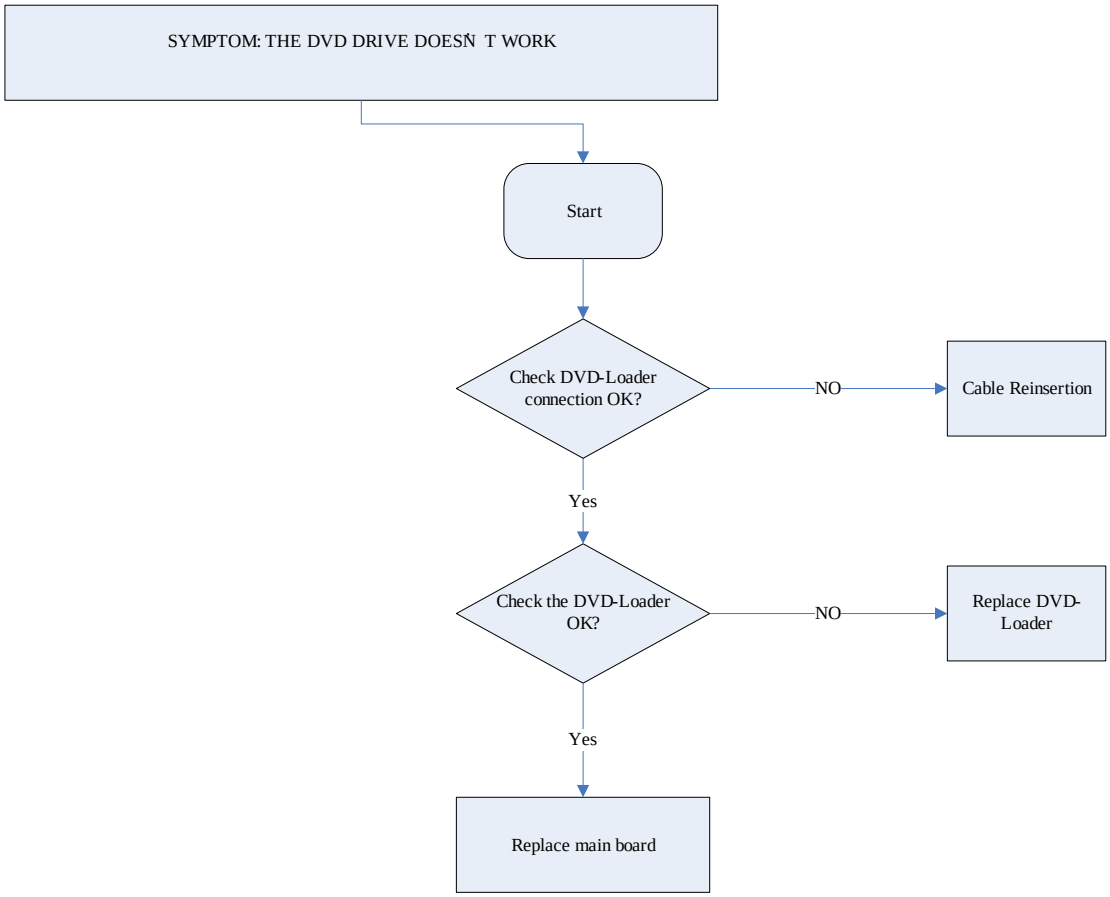
SYMPTOM: NO IMAGE / NO SOUND


SYMPTOM: NO IMAGE OUTPUT(THE PANEL SHOW BLUE PICTURE)
Start
Check DVD Drive work?
no
Replace DVD Drive
yes
NOTE: AV Cable TYPE from outside to Inside L-Audio, R-Audio, Video, Ground
Check the external AV Cable TYPE note and connection is OK?
no
Exchange AV cable
yes
Replace Main Board



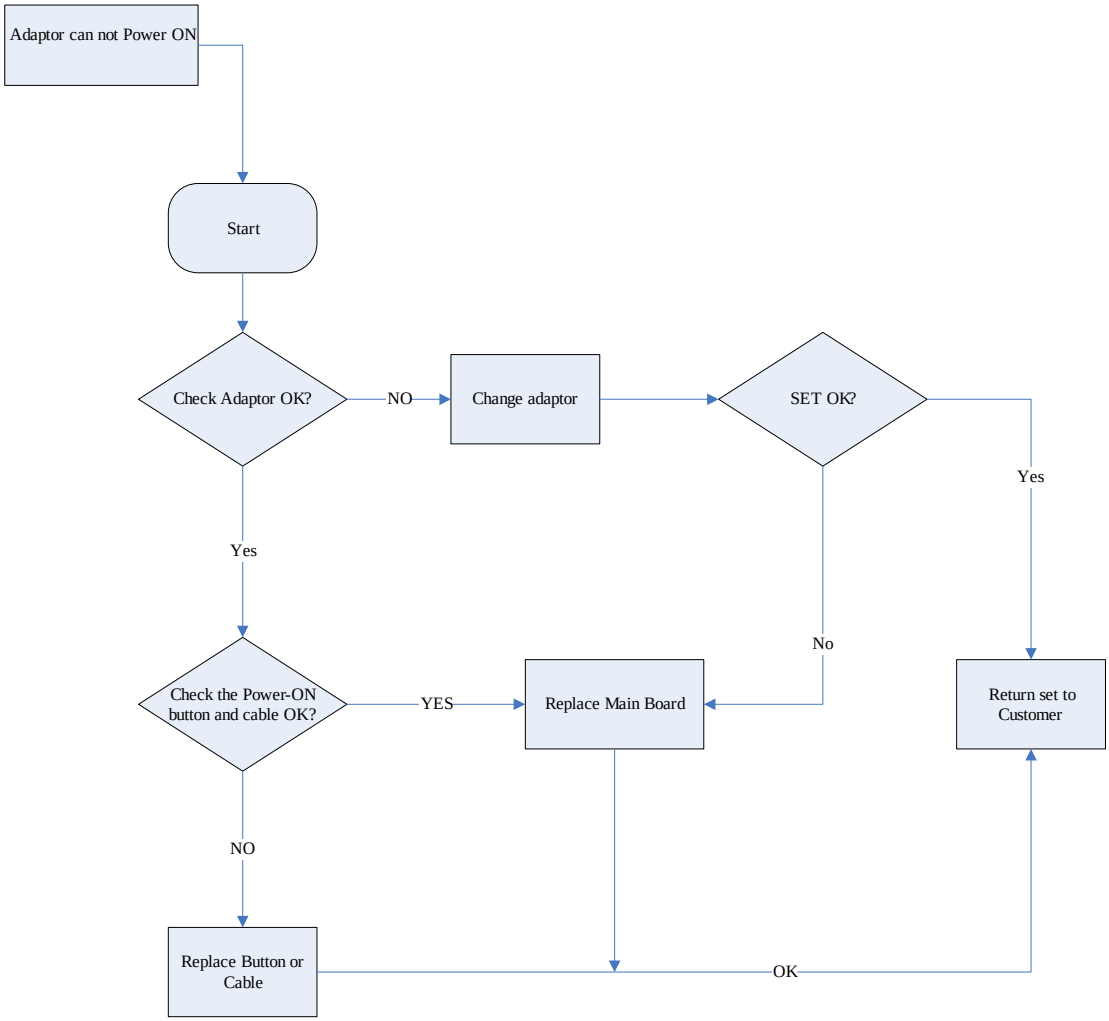
5.0 TROUBLESHOOTING

SYMPTOM: THE DVD DRIVE DOES NOT WORK



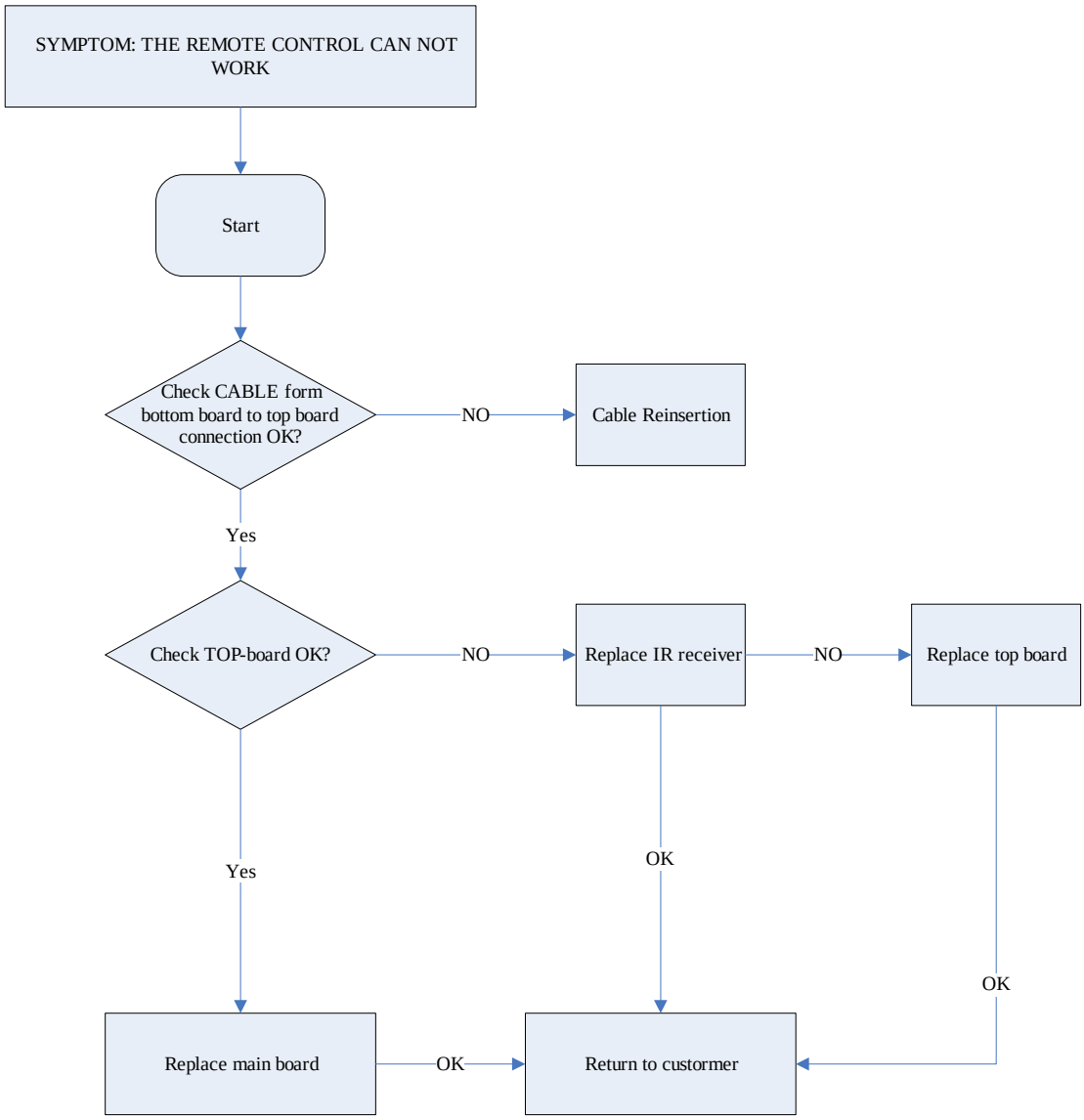
5.0 TROUBLESHOOTING

SYMPTOM: ADAPTOR CANNOT POWER ON



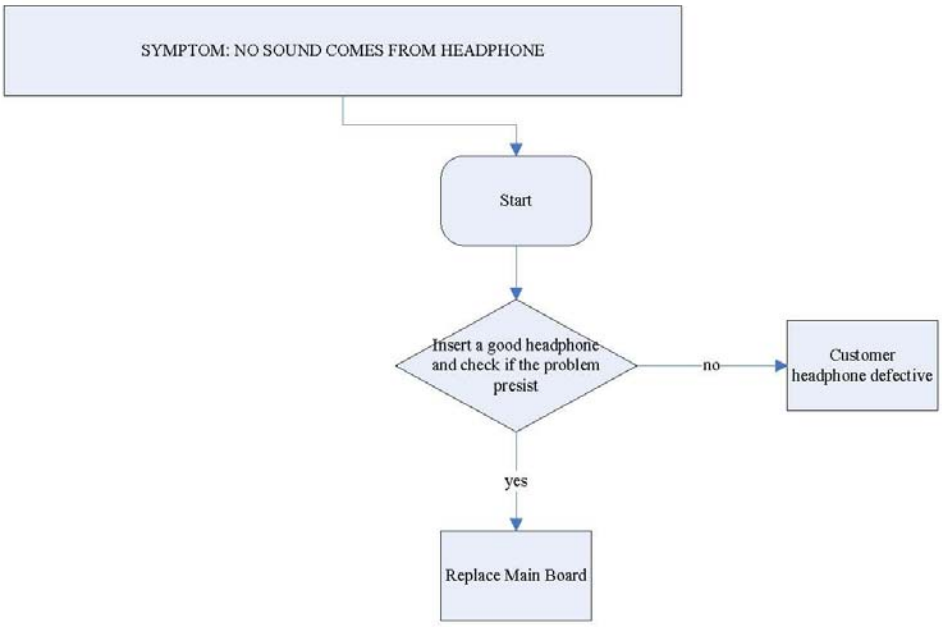
5.0 TROUBLESHOOTING

SYMPTOM: REMOTE CONTROL CANNOT WORK



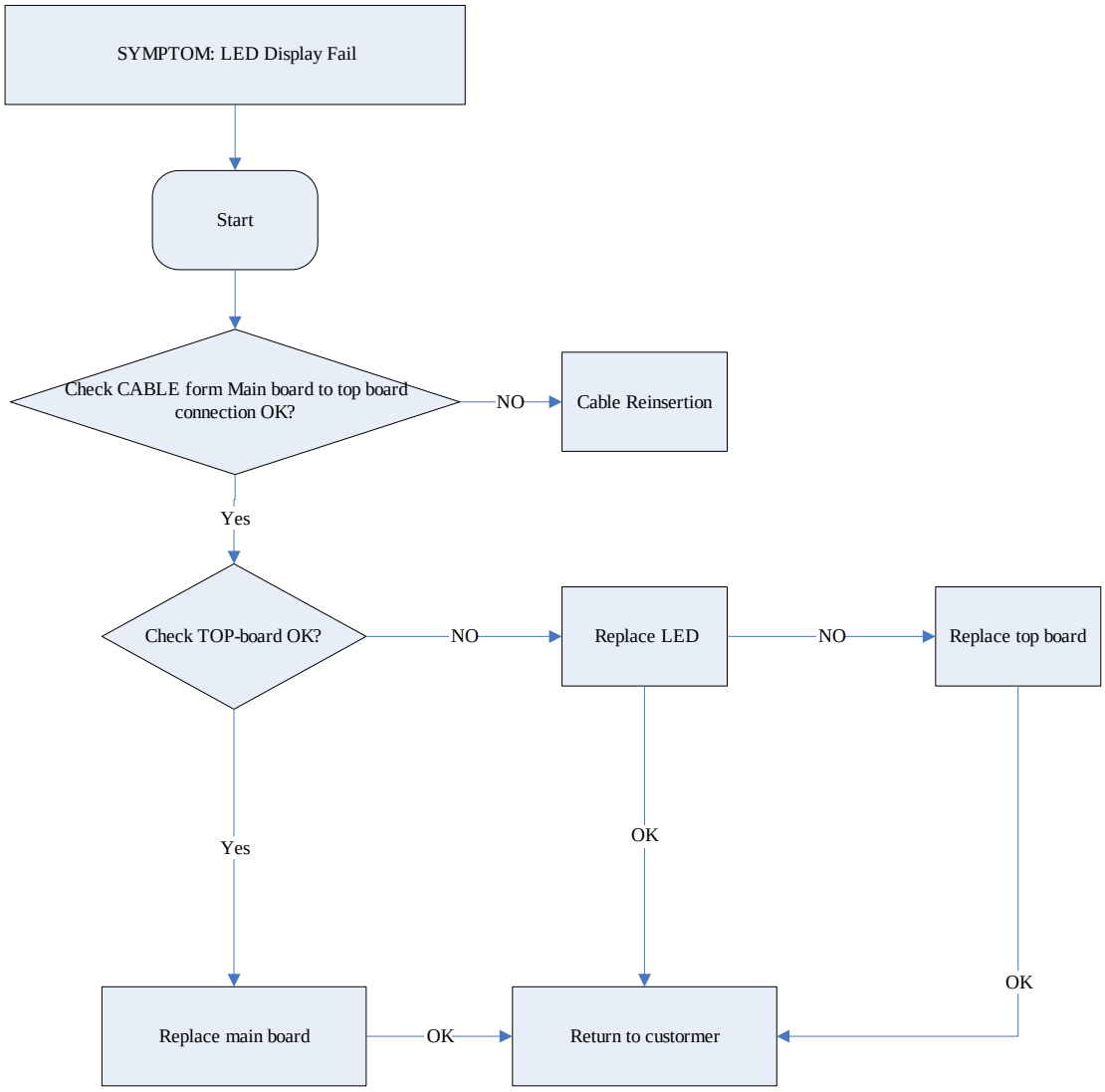
5.0 TROUBLESHOOTING

SYMPTOM: NO SOUND FROM HEADPHONE



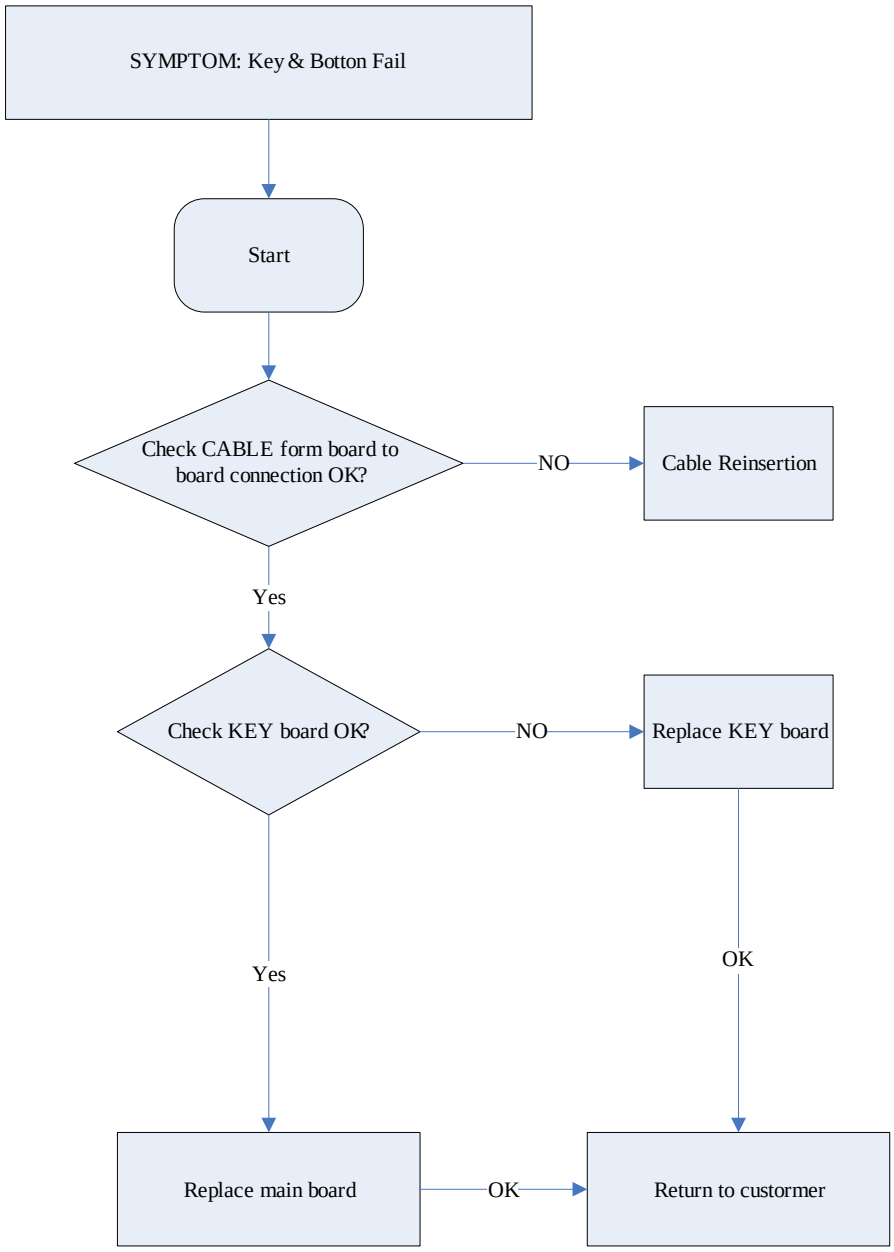
5.0 TROUBLESHOOTING

SYMPTOM: LED DISPLAY FAILURE

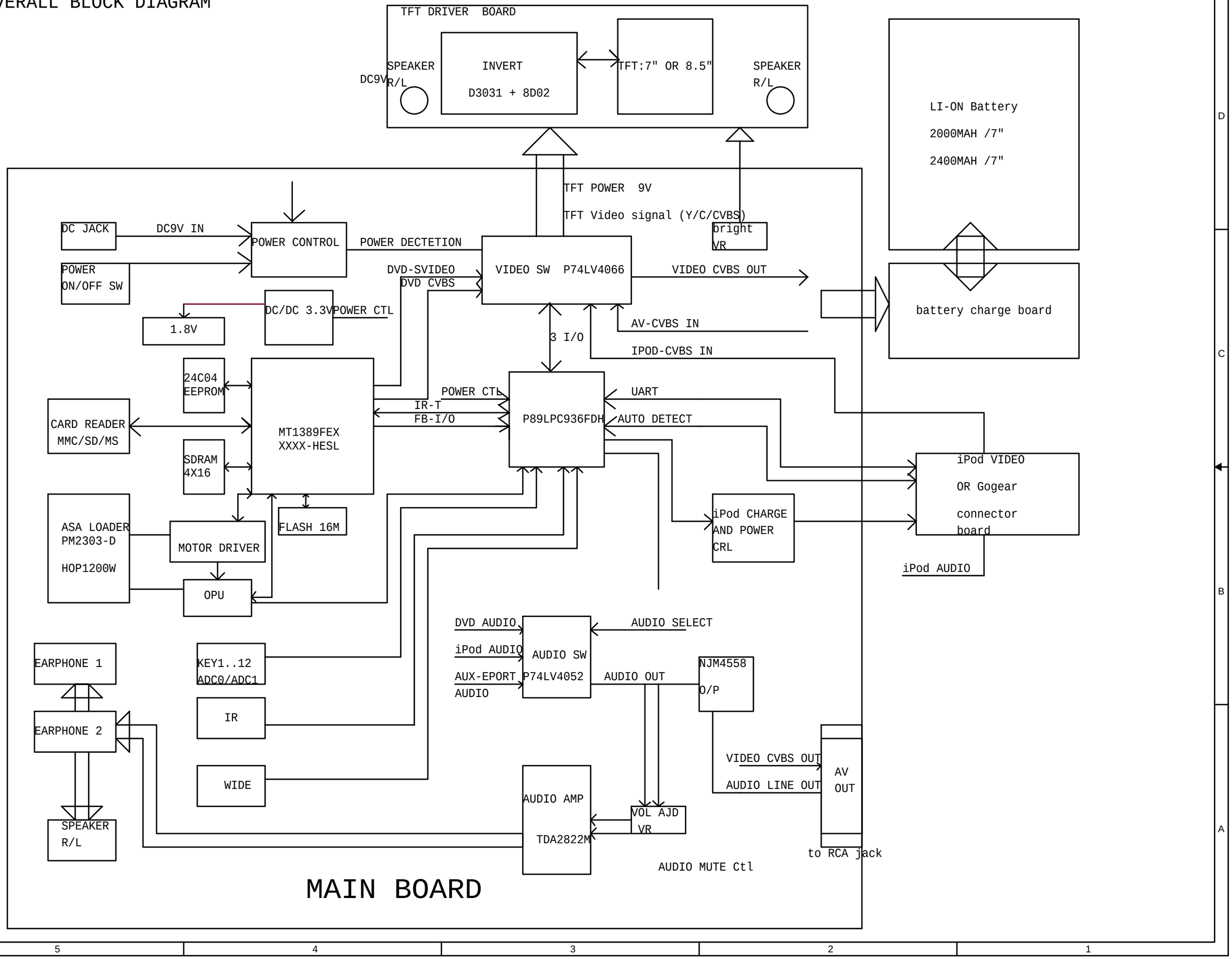


5.0 TROUBLESHOOTING

SYMPTOM: KEY & BOTTON FAILURE

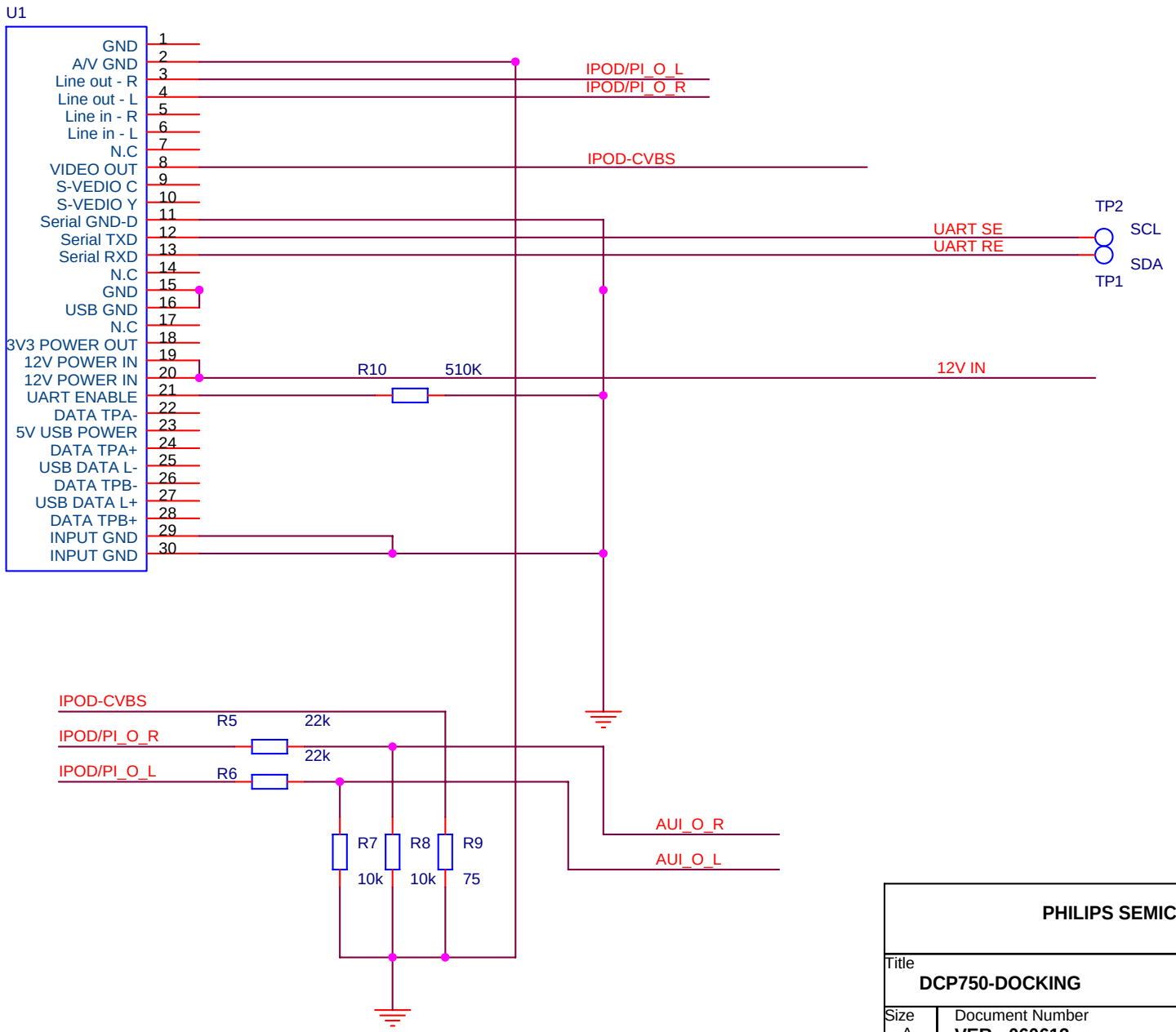


6.0 OVERALL BLOCK DIAGRAM



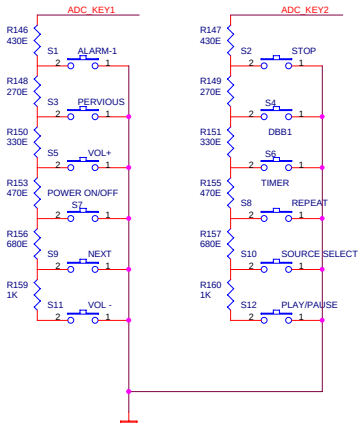
7.0 ELECTRICAL DIAGRAM

7.1 IPOD BOARD

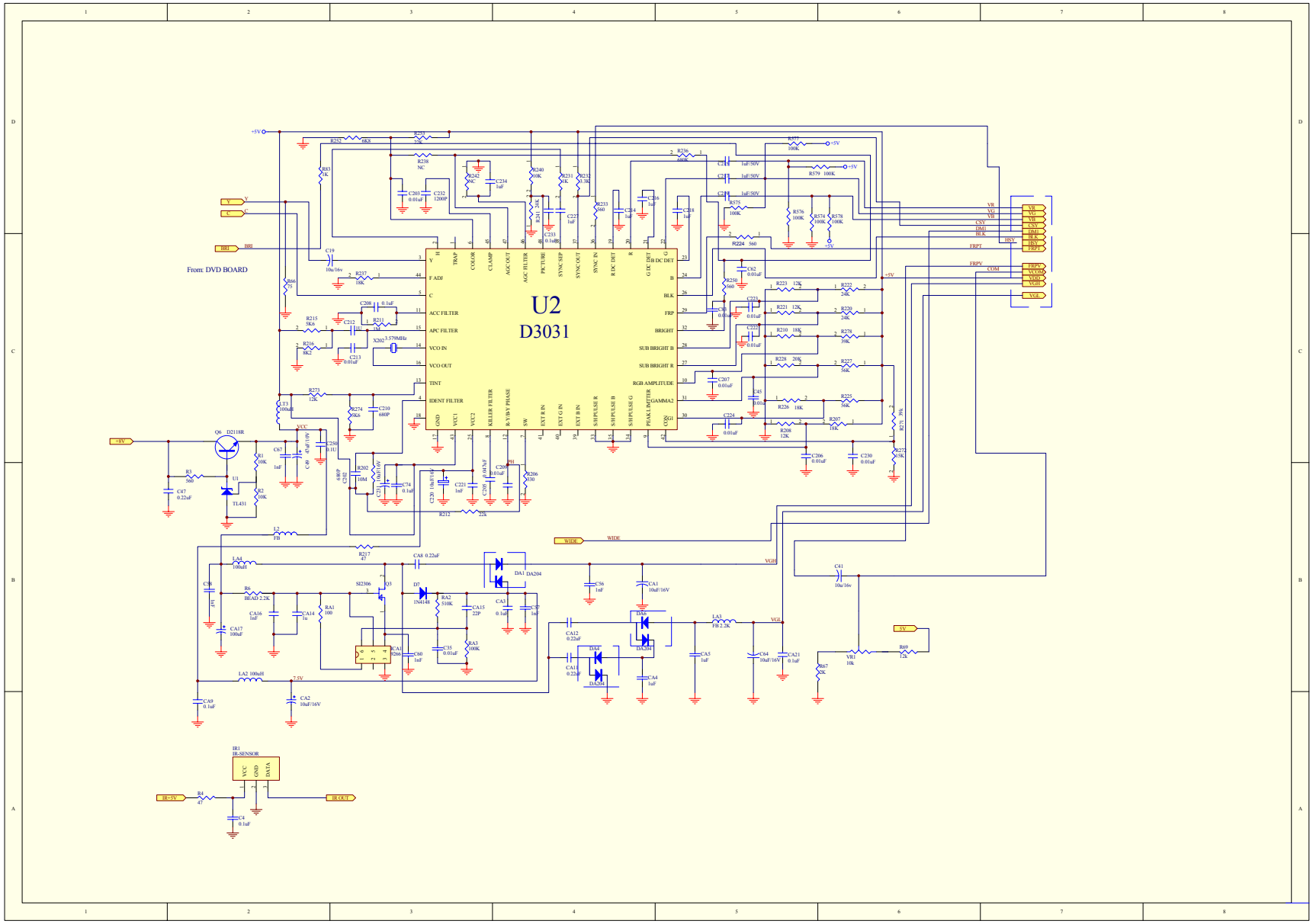


PHILIPS SEMICONDUCTORS		
Title: DCP750-DOCKING		
Size: A	Document Number: VER : 060613	Rev: V1
Date: Monday, January 15, 2007	Sheet 1 of 1	

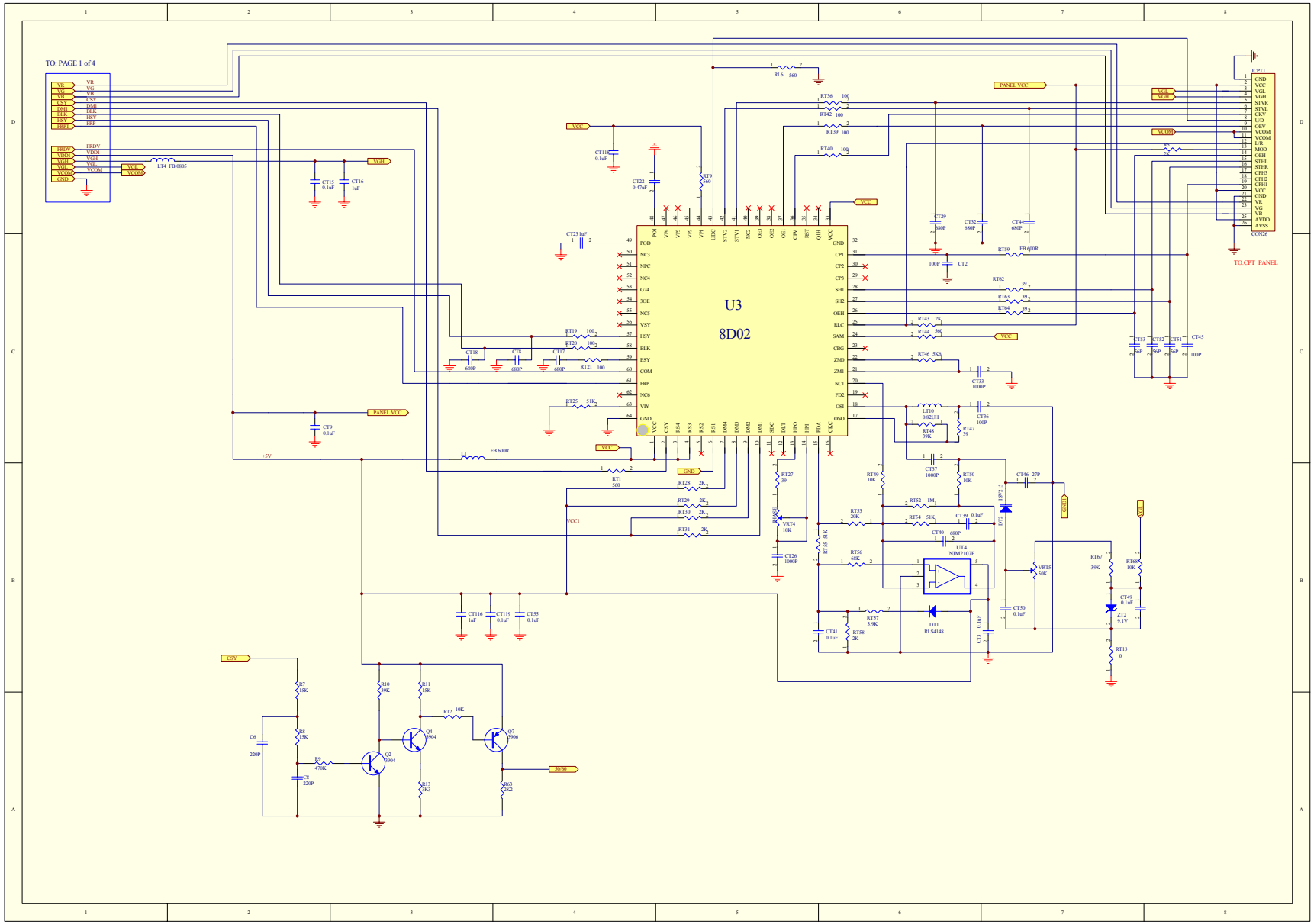
7.2 KEY BOARD


ADC_KEY1
R146
430E
S1
ALARM-1
R148
270E
S3
PERVIOUS
R150
330E
S5
VOL+
R153
470E
POWER ON/OFF
S7
R156
680E
S9
NEXT
R159
1K
S11
VOL -
ADC_KEY2
R147
430E
S2
STOP
R149
270E
S4
R151
330E
DBB1
S6
R155
470E
TIMER
S8
REPEAT
R157
680E
S10
SOURCE SELECT
R160
1K
S12
PLAY/PAUSE

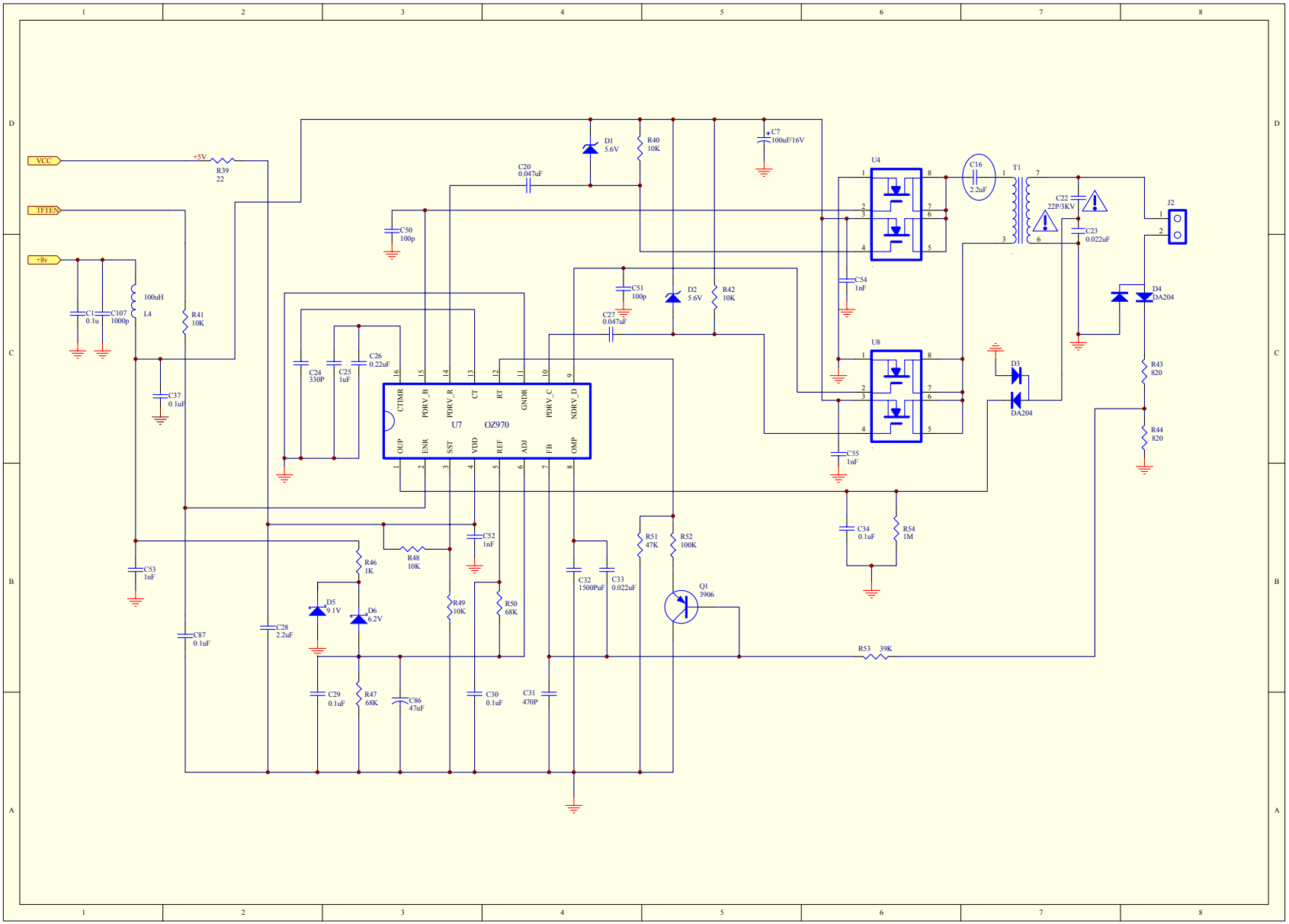
7.3 TFT DRIVER BOARD



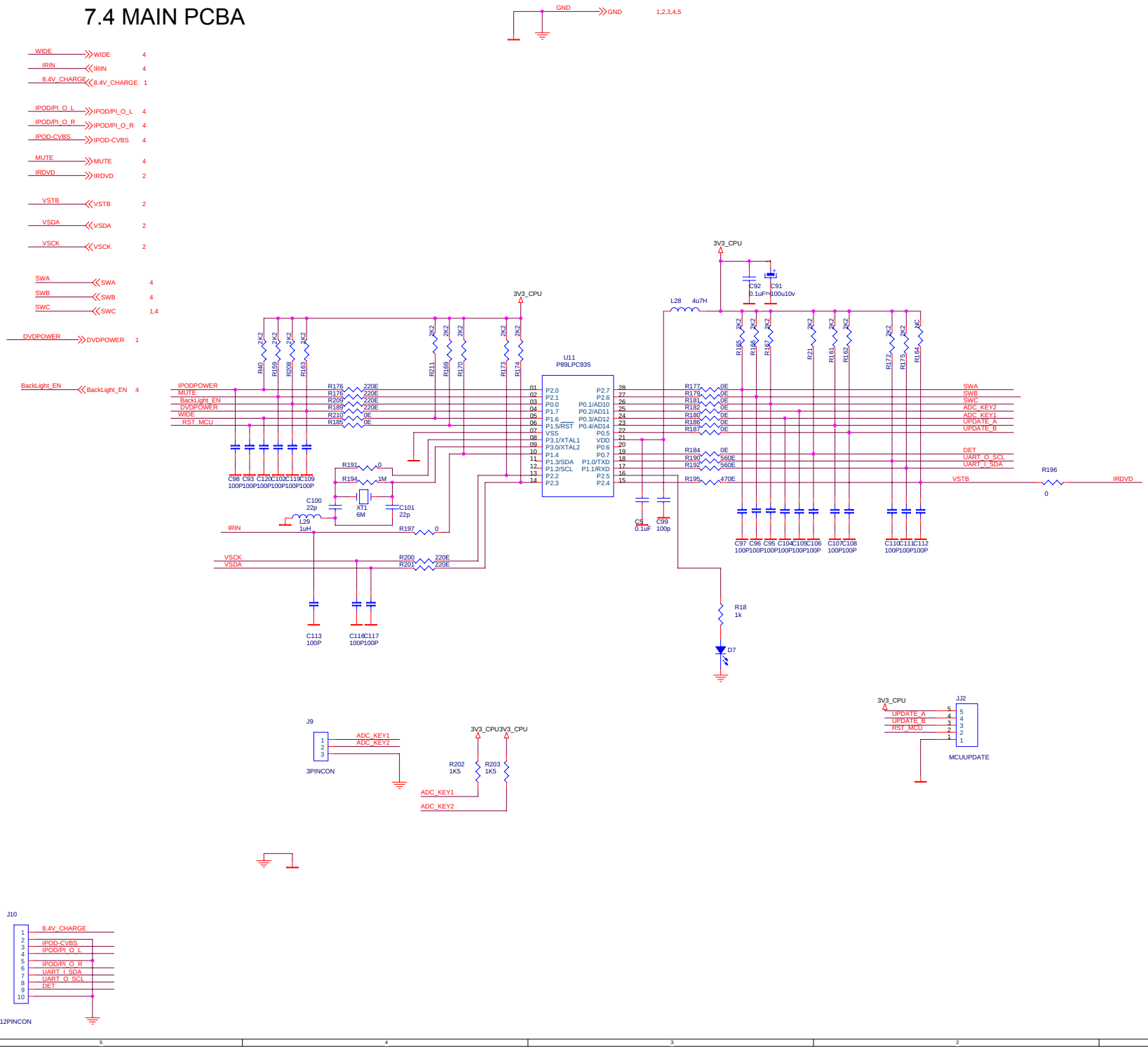
7.3 TFT DRIVER BOARD

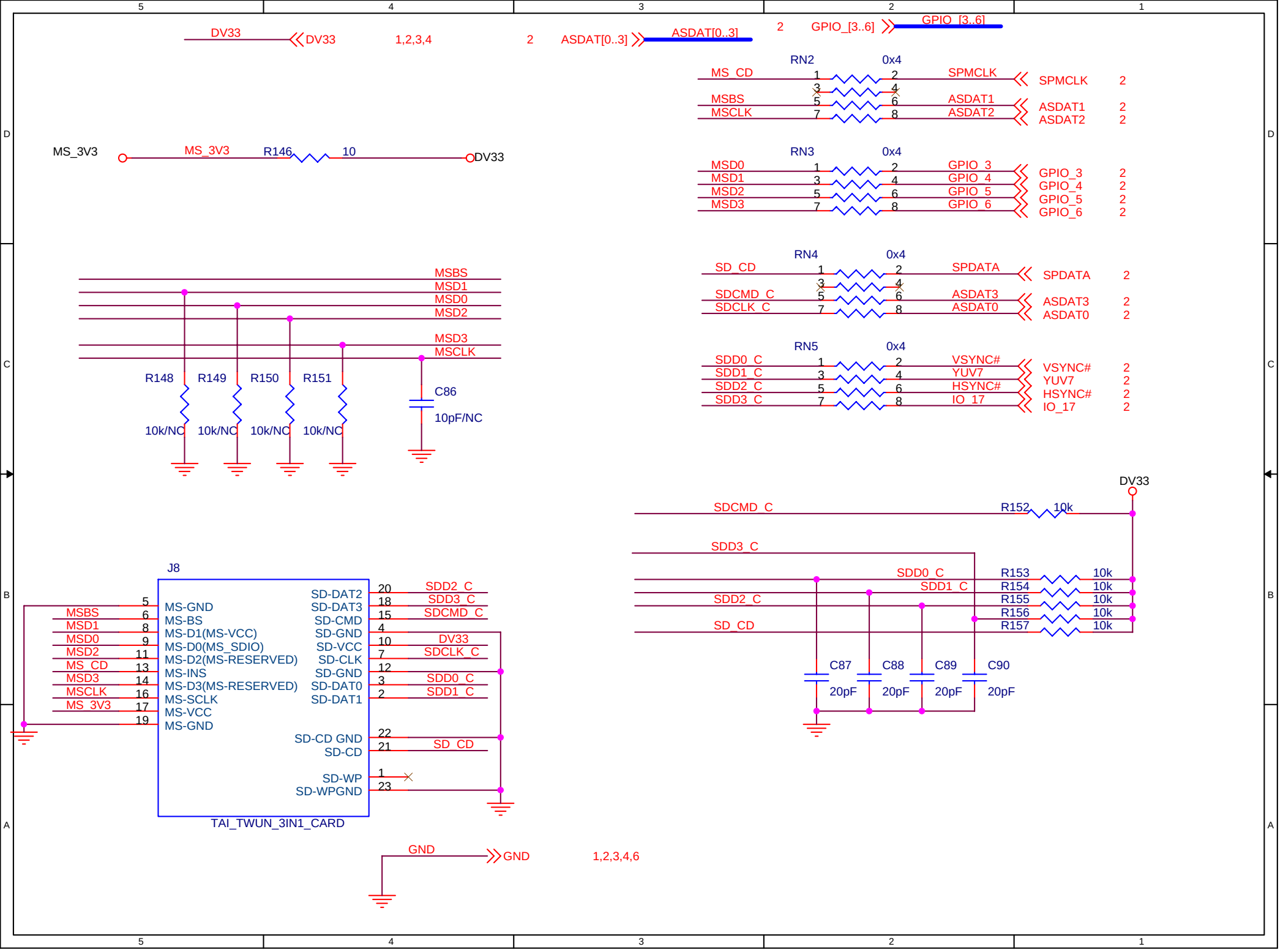


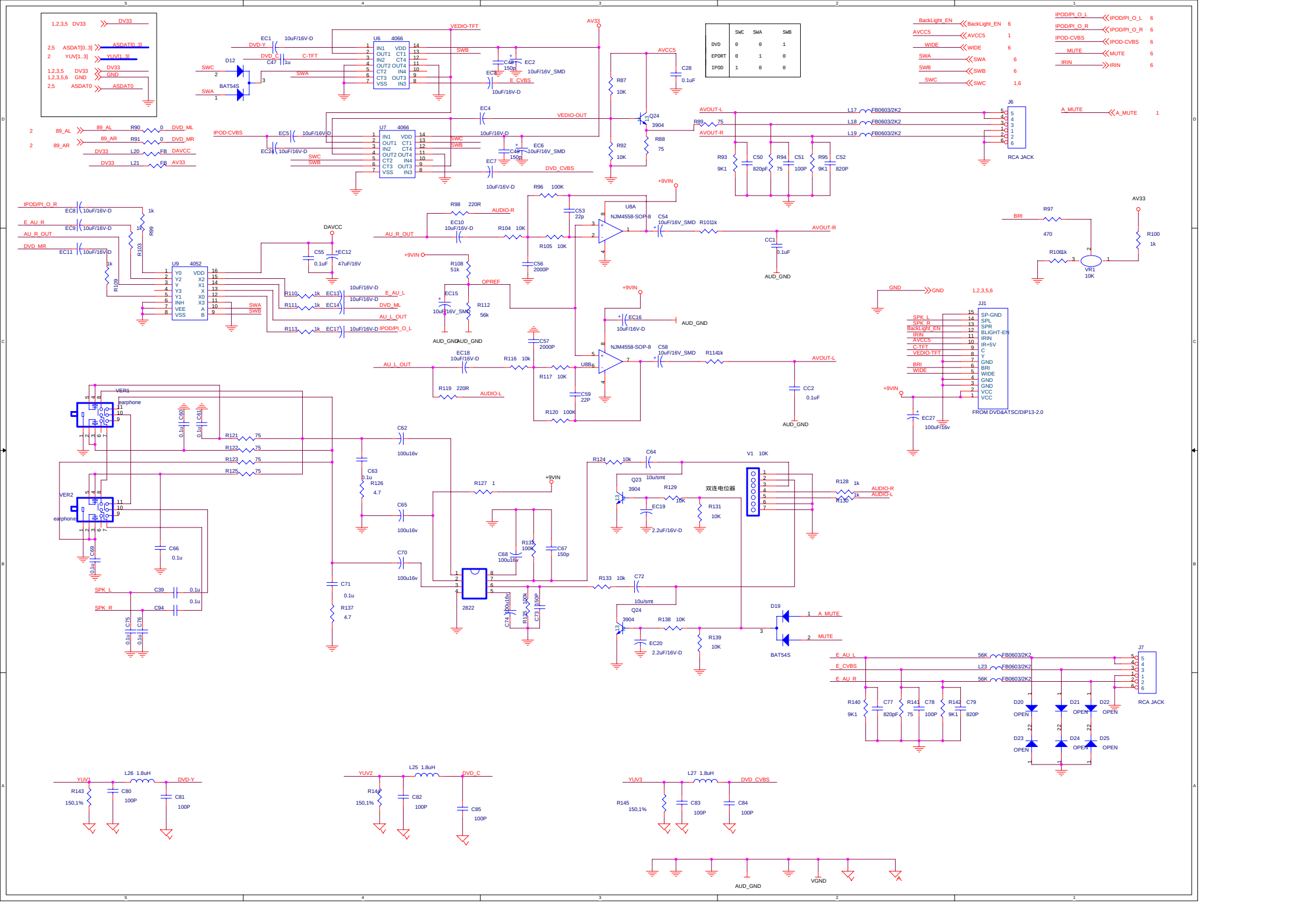
7.3 TFT DRIVER BOARD

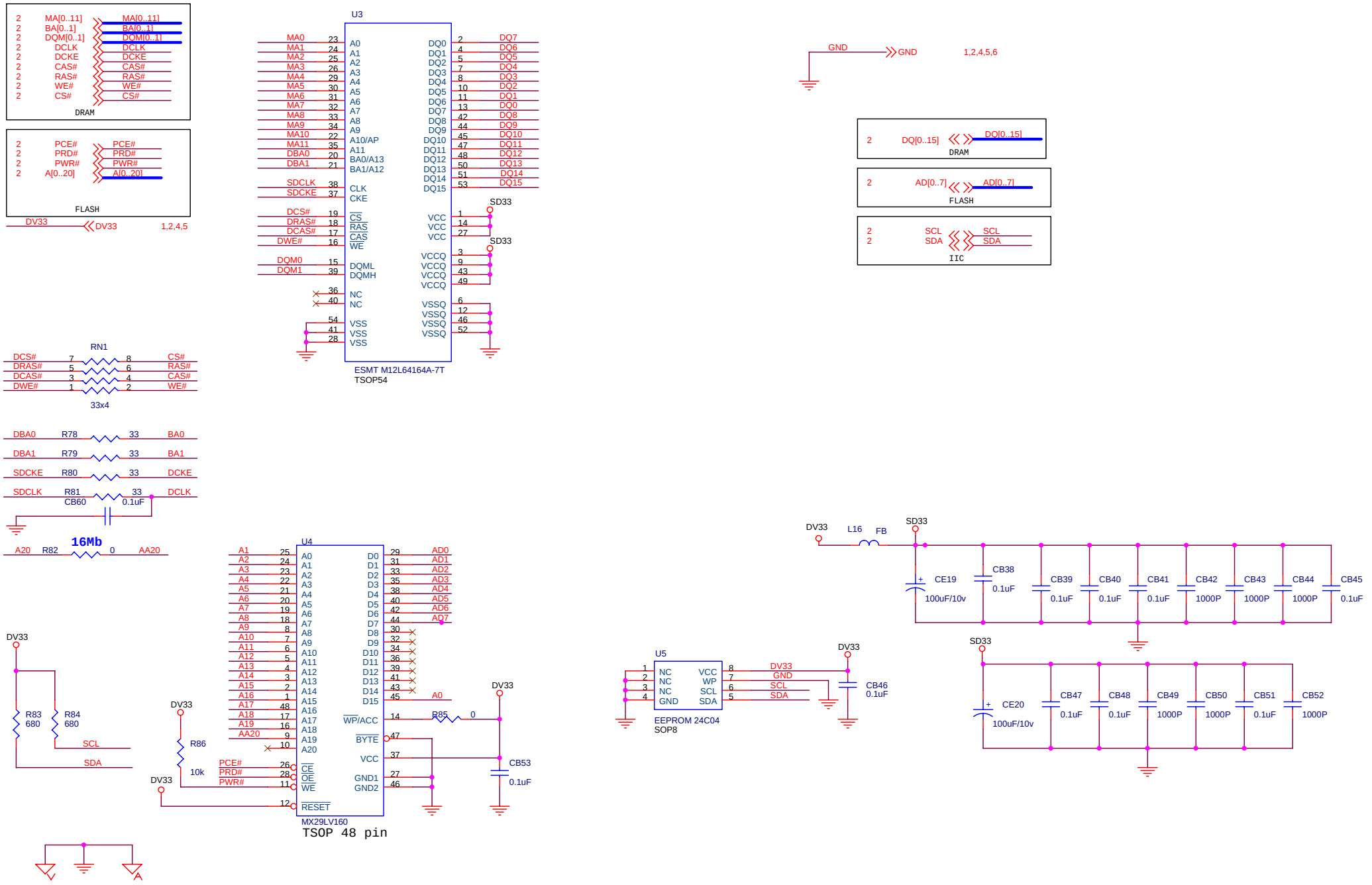


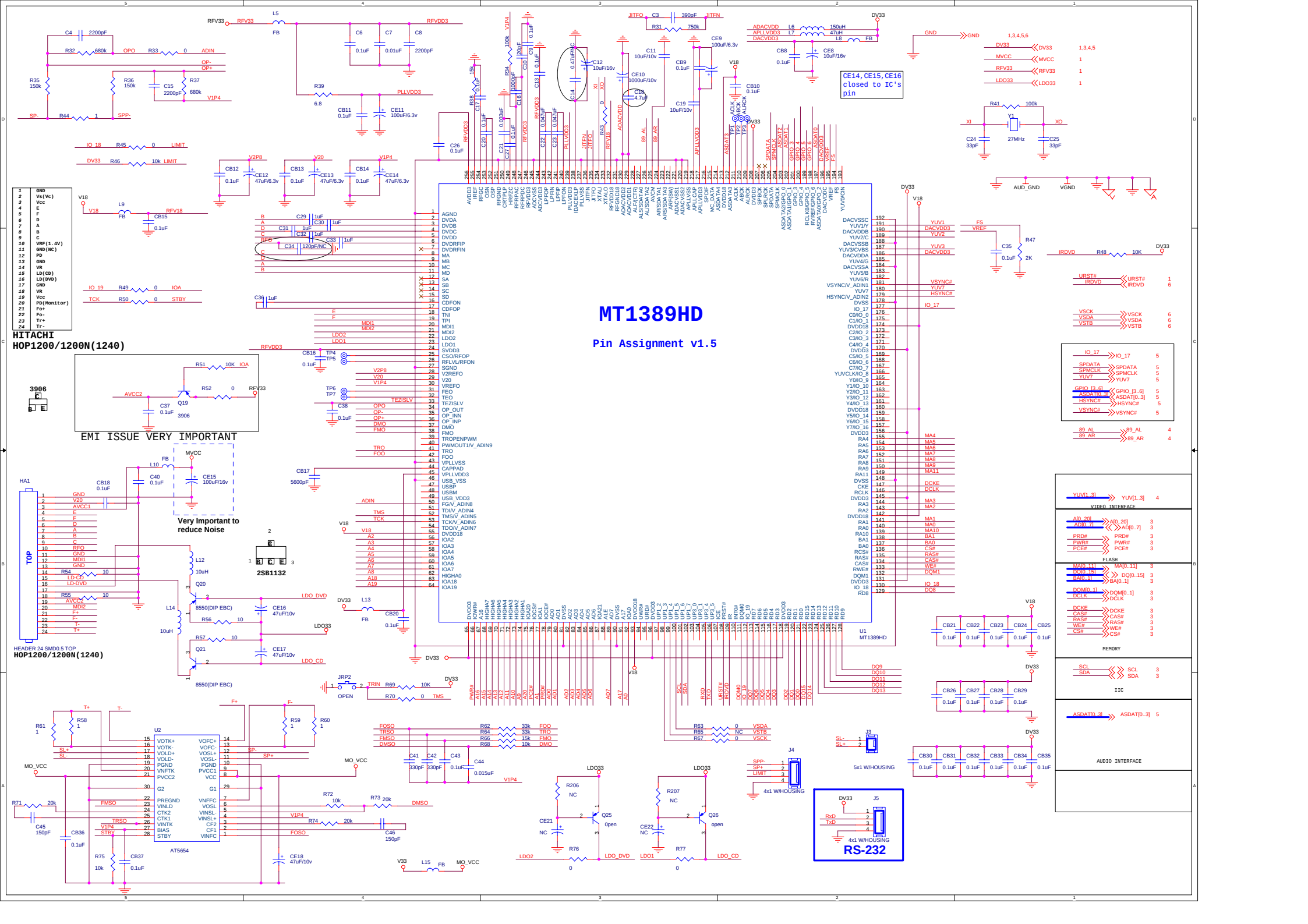
7.4 MAIN PCBA

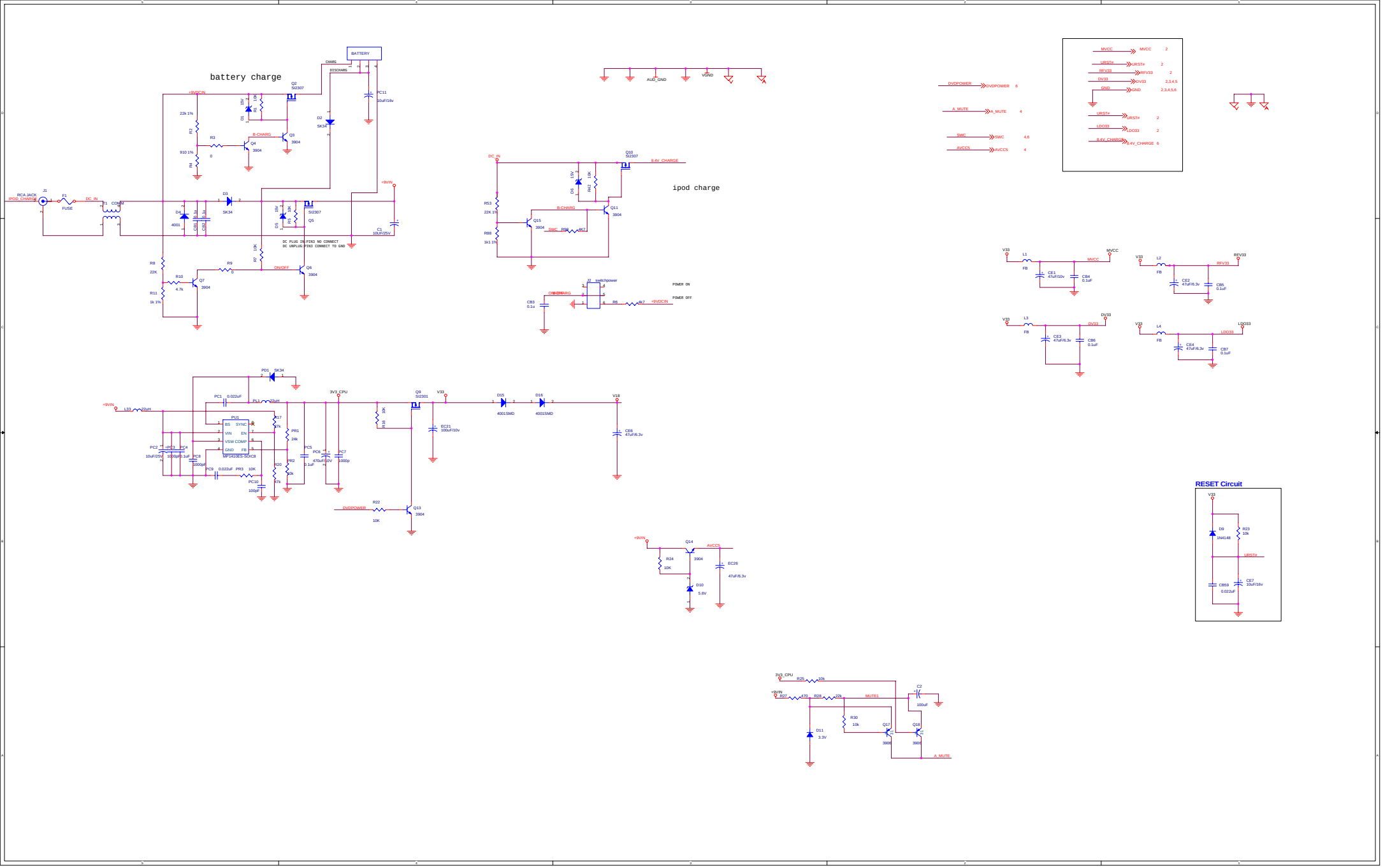

GND
GND 1,2,3,4,5
WIDE
IRIN
8.4V_CHARGE
IPOD/PI_O_L
IPOD/PI_O_R
IPOD-CVBS
MUTE
IRDVD
VSTB
VSDA
VSCK
SWA
SWB
SWC
DVDPOWER
BackLight_EN
3V3_CPU
U11
P89LPC935
L28 4u7H
C92 0.1uF
C91 100u10v
IPODPOWER
RST_MCU
R191 0
R194 1M
XT1 6M
C100 22p
C101 22p
L29 1uH
R197 0
R200 220E
R201 220E
C113 100P
C116 C117 100P100P
R18 1k
D7
C3 0.1uF
C99 100p
R196 0
J9
3PINCON
ADC_KEY1
ADC_KEY2
R202 1K5
R203 1K5
JJ2
MCUUPDATE
UPDATE_A
UPDATE_B
J10
12PINCON
UART_I_SDA
UART_O_SCL
DET


DV33
DV33
1,2,3,4
2
ASDAT[0..3]
ASDAT[0..3]
2
GPIO_[3..6]
GPIO_[3..6]
RN2
0x4
MS_CD
SPMCLK
SPMCLK
2
MSBS
ASDAT1
ASDAT1
2
MSCLK
ASDAT2
ASDAT2
2
MS_3V3
MS_3V3
R146
10
DV33
RN3
0x4
MSD0
GPIO_3
GPIO_3
2
MSD1
GPIO_4
GPIO_4
2
MSD2
GPIO_5
GPIO_5
2
MSD3
GPIO_6
GPIO_6
2
RN4
0x4
SD_CD
SPDATA
SPDATA
2
SDCMD_C
ASDAT3
ASDAT3
2
SDCLK_C
ASDAT0
ASDAT0
2
RN5
0x4
SDD0_C
VSYNC#
VSYNC#
2
SDD1_C
YUV7
YUV7
2
SDD2_C
HSYNC#
HSYNC#
2
SDD3_C
IO_17
IO_17
2
MSBS
MSD1
MSD0
MSD2
MSD3
MSCLK
R148
R149
R150
R151
C86
10pF/NC
10k/NC
10k/NC
10k/NC
10k/NC
DV33
SDCMD_C
R152
10k
SDD3_C
SDD0_C
SDD1_C
SDD2_C
SD_CD
R153
R154
R155
R156
R157
10k
C87
C88
C89
C90
20pF
20pF
20pF
20pF
J8
MS-GND
MS-BS
MS-D1(MS-VCC)
MS-D0(MS_SDIO)
MS-D2(MS-RESERVED)
MS-INS
MS-D3(MS-RESERVED)
MS-SCLK
MS-VCC
MS-GND
SD-DAT2
SD-DAT3
SD-CMD
SD-GND
SD-VCC
SD-CLK
SD-GND
SD-DAT0
SD-DAT1
SD-CD GND
SD-CD
SD-WP
SD-WPGND
MSBS
MSD1
MSD0
MSD2
MS_CD
MSD3
MSCLK
MS_3V3
SDD2_C
SDD3_C
SDCMD_C
DV33
SDCLK_C
SDD0_C
SDD1_C
SD_CD
TAI_TWUN_3IN1_CARD
GND
GND
1,2,3,4,6


1,2,3,5 DV33
DV33
2,5 ASDAT[0..3]
ASDAT[0..3]
2 YUV[1..3]
YUV[1..3]
1,2,3,5 DV33
DV33
1,2,3,5,6 GND
GND
2,5 ASDAT0
ASDAT0
SWC SWA SWB
DVD 0 0 1
EPORT 0 1 0
IPOD 1 0 0
BackLight_EN
AVCC5
WIDE
SWA
SWB
SWC
IPOD/PI_O_L
IPOD/PI_O_R
IPOD-CVBS
MUTE
IRIN
A_MUTE
VEDIO-TFT
VEDIO-OUT
E_CVBS
DVD_CVBS
AV33
+9VIN
DAVCC
AUD_GND
VGND
AUDIO-R
AUDIO-L
AVOUT-R
AVOUT-L
AU_R_OUT
AU_L_OUT
OPREF
IPOD-CVBS
E_AU_L
E_AU_R
DVD_ML
DVD_MR
DVD_DAVCC
SPK_L
SPK_R
earphone
RCA JACK
FROM DVD&ATSC/DIP13-2.0
U6 4066
U7 4066
U8A NJM4558-SOP-8
U8B NJM4558-SOP-8
U9 4052
JJ1
J6
J7
VER1
VER2
Q23 3904
Q24 3904
D19 BAT54S
D12 BAT54S
V1 10K
双连电位器
VR1 10K
2822
L17 FB0603/2K2
L18 FB0603/2K2
L19 FB0603/2K2
L23 FB0603/2K2
L26 1.8uH
L25 1.8uH
L27 1.8uH
YUV1
YUV2
YUV3
DVD-Y
DVD_C
DVD_CVBS
R87 10K
R88 75
R89 75
R92 10K
R93 9K1
R94 75
R95 9K1
R96 100K
R98 220R
R99 1k
R100 1k
R103 1k
R104 10K
R105 10K
R106 1k
R108 51k
R112 56k
R116 10k
R117 10K
R119 220R
R120 100K
R121 75
R122 75
R123 75
R125 75
R126 4.7
R127 1
R128 1k
R129 10K
R130 1k
R131 10K
R133 10k
R135 100K
R137 4.7
R138 10K
R139 10K
R140 9K1
R141 75
R142 9K1
R143 150,1%
R144 150,1%
R145 150,1%
C28 0.1uF
C45 150p
C46 150p
C47 1u
C48 150p
C49 150p
C50 820pF
C51 100P
C52 820P
C53 22p
C54 10uF/16V_SMD
C55 0.1uF
C56 2000P
C57 2000P
C58 10uF/16V_SMD
C59 22P
C62 100u16v
C63 0.1u
C64 10u/smt
C65 100u16v
C66 0.1u
C67 150p
C68 100u16v
C69 0.1u
C70 100u16v
C71 0.1u
C72 10u/smt
C73 150P
C74 100u16v
C75 0.1u
C76 0.1u
C77 820pF
C78 100P
C79 820P
C80 100P
C81 100P
C82 100P
C83 100P
C84 100P
C85 100P
C94 0.1u
CC1 0.1uF
CC2 0.1uF
EC1 10uF/16V-D
EC2 10uF/16V_SMD
EC3 10uF/16V-D
EC4 10uF/16V-D
EC5 10uF/16V-D
EC6 10uF/16V_SMD
EC7 10uF/16V-D
EC8 10uF/16V-D
EC9 10uF/16V-D
EC10 10uF/16V-D
EC11 10uF/16V-D
EC12 47uF/16V
EC13 10uF/16V-D
EC14 10uF/16V-D
EC15 10uF/16V_SMD
EC16 10uF/16V-D
EC17 10uF/16V-D
EC18 10uF/16V-D
EC19 2.2uF/16V-D
EC20 2.2uF/16V-D
EC27 100uF/16v
VR1 10K
D20 OPEN
D21 OPEN
D22 OPEN
D23 OPEN
D24 OPEN
D25 OPEN

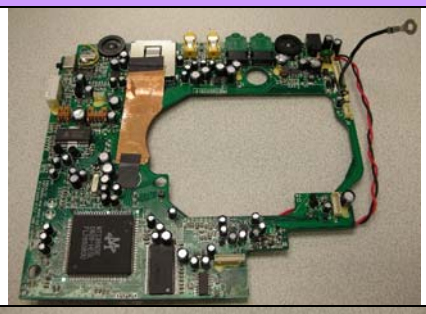
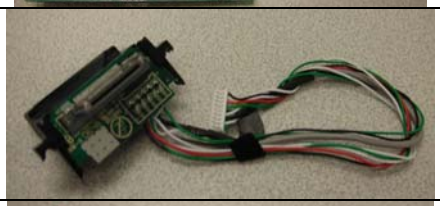
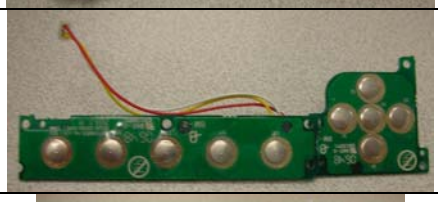
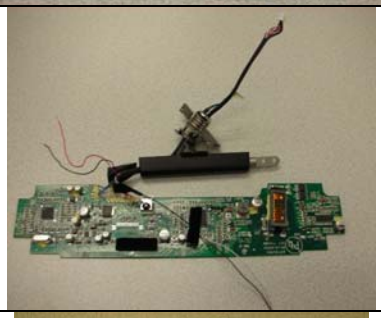

DRAM
MA[0..11]
BA[0..1]
DQM[0..1]
DCLK
DCKE
CAS#
RAS#
WE#
CS#
FLASH
PCE#
PRD#
PWR#
A[0..20]
DV33
1,2,4,5
U3
MA0 MA1 MA2 MA3 MA4 MA5 MA6 MA7 MA8 MA9 MA10 MA11
DBA0 DBA1
SDCLK SDCKE
DCS# DRAS# DCAS# DWE#
DQM0 DQM1
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10/AP A11
BA0/A13 BA1/A12
CLK CKE
CS RAS CAS WE
DQML DQMH
NC NC
VSS VSS VSS
DQ0 DQ1 DQ2 DQ3 DQ4 DQ5 DQ6 DQ7 DQ8 DQ9 DQ10 DQ11 DQ12 DQ13 DQ14 DQ15
VCC VCC VCC
VCCQ VCCQ VCCQ VCCQ
VSSQ VSSQ VSSQ VSSQ
SD33
SD33
ESMT M12L64164A-7T
TSOP54
GND
GND
1,2,4,5,6
DQ[0..15]
DQ[0..15]
DRAM
AD[0..7]
AD[0..7]
FLASH
SCL
SDA
IIC
RN1
DCS# DRAS# DCAS# DWE#
CS# RAS# CAS# WE#
33x4
DBA0 R78 33 BA0
DBA1 R79 33 BA1
SDCKE R80 33 DCKE
SDCLK R81 33 DCLK
CB60 0.1uF
16Mb
A20 R82 0 AA20
U4
A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20
D0 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15
AD0 AD1 AD2 AD3 AD4 AD5 AD6 AD7
WP/ACC
BYTE
VCC
GND1 GND2
RESET
CE OE WE
PCE# PRD# PWR#
A0
R85 0
R86 10k
CB53 0.1uF
MX29LV160
TSOP 48 pin
DV33
R83 680
R84 680
SCL
SDA
U5
NC NC NC GND
VCC WP SCL SDA
EEPROM 24C04
SOP8
CB46 0.1uF
L16 FB
CE19 100uF/10v
CB38 0.1uF
CB39 0.1uF
CB40 0.1uF
CB41 0.1uF
CB42 1000P
CB43 1000P
CB44 1000P
CB45 0.1uF
CE20 100uF/10v
CB47 0.1uF
CB48 0.1uF
CB49 1000P
CB50 1000P
CB51 0.1uF
CB52 1000P


MT1389HD
Pin Assignment v1.5
HITACHI
HOP1200/1200N(1240)
EMI ISSUE VERY IMPORTANT
Very Important to reduce Noise
2SB1132
8550(DIP EBC)
AT5654
HEADER 24 SMD0.5 TOP
HOP1200/1200N(1240)
CE14,CE15,CE16 closed to IC's pin
RS-232
VIDEO INTERFACE
FLASH
MEMORY
IIC
AUDIO INTERFACE
5x1 W/HOUSING
4x1 W/HOUSING


battery charge
BATTERY
DISCHARG
+9VDCIN
Q2
SI2307
D1
15V
R1
10K
D2
SK34
C11
10uF/16v
22k 1%
R2
R3
0
B-CHARG
Q3
3904
Q4
3904
910 1%
R4
+9VIN
J1
RCA JACK
IPOD_CHARG
F1
FUSE
DC_IN
T1
COIL
D3
SK34
D4
4001
C81
0.1u
C82
0.1u
D5
15V
R5
10K
Q5
SI2307
C1
10UF/25V
DC PLUG IN:PIN2 NO CONNECT
DC UNPLUG:PIN2 CONNECT TO GND
R7
10K
R8
22K
R9
0
ON/OFF
Q6
3904
R10
4.7k
Q7
3904
R11
1k 1%
AUD_GND
VGND
DVDPOWER
DVDPOWER 6
A_MUTE
A_MUTE 4
SWC
SWC 4,6
AVCC5
AVCC5 4
MVCC
MVCC 2
URST#
URST# 2
RFV33
RFV33 2
DV33
DV33 2,3,4,5
GND
GND 2,3,4,5,6
URST#
URST# 2
LDO33
LDO33 2
8.4V_CHARGE
8.4V_CHARGE 6
ipod charge
DC_IN
Q10
SI2307
8.4V_CHARGE
D6
15V
R43
10K
R53
22K 1%
B-CHARG
Q11
3904
Q15
3904
SWC
R88
1k1 1%
J2
switchpower
ON/OFF
CHARG
CB3
0.1u
R6
4k7
+9VDCIN
POWER ON
POWER OFF
V33
L1
FB
MVCC
CE1
47uF/10v
CB4
0.1uF
V33
L2
FB
RFV33
CE2
47uF/6.3v
CB5
0.1uF
V33
L3
FB
DV33
CE3
47uF/6.3v
CB6
0.1uF
V33
L4
FB
LDO33
CE4
47uF/6.3v
CB7
0.1uF
PD1
SK34
+9VIN
L33
22uH
PC1
0.022uF
PL1
22uH
3V3_CPU
Q9
SI2301
V33
D15
4001SMD
D16
4001SMD
V18
CE6
47uF/6.3v
PU1
MP1410ES-SOIC8
BS
SYNC
VIN
EN
VSW
COMP
GND
FB
R17
47k
PR1
24k
PC2
10uF/25V
PC3
1000pF
PC4
0.1uF
PC8
1000pF
PC9
0.022uF
PR3
10K
PC10
100pF
R20
47k
PR2
10k
PC5
470uF/10V
PC6
0.1uF
PC7
1000p
R19
10K
EC21
100uF/10v
R22
10K
Q13
3904
DVDPOWER
Q14
3904
AVCC5
R24
10K
EC26
47uF/6.3v
D10
5.8V
RESET Circuit
V33
D9
1N4148
R23
10k
URST#
CB59
0.022uF
CE7
10uF/16v
3V3_CPU
R25
10k
+9VIN
R27
470
R28
22k
MUTE1
C2
100uF
R30
10k
D11
3.3V
Q17
3906
Q18
3906
A_MUTE

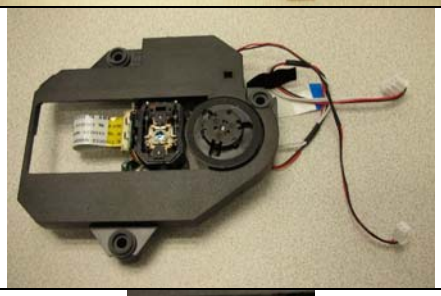
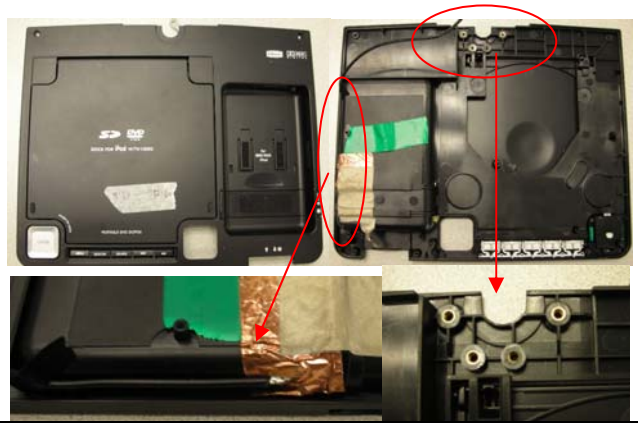
8.0 SERVICE PART LIST

Electrical Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
1	996510001972	MAIN PCBA DCP850/12		100
2	996510001511	IPOD PCBA DCP750		110
3	996510001513	KEY PCBA DCP750		120
4	996510001978	TFT DRIVER PCBA DCP850 (WITH HINGE & HINGE HOUSING, SOLDERING IS REQUIRED TO CONNECT WIRE WITH SPEAKERS ON DISPLAY FRAME, REFER TO SECTION 4 ABOVE)		130
5	996510001593	BATTERY & BATT PCBA DCP750 (SOLDERING IS REQUIRED BETWEEN BATTERY AND BATTERY PCBA)		140
	996510018613	Stand alone battery (In case 996510001593 is not available, you can order either one of these battery for service and detail refer to S/C# AM-08/036)		BATTERY

8.0 SERVICE PART LIST

Mechanical Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
7	996510001973	8.5” PANEL FINAL ASS’Y		200
8	996510001515	DVD LOADER		210
9	996510001519	FFC 24P LINK DVD LOADER		220
10	996510001974	FRONT CABINET DCP850		300
11	996510001975	BOTTOM CABINET DCP850		310
12	996510001977	DISPLAY FRAME WITH SPEAK		320
13	996510001976	MIDDLE CABINET ASS’Y (WITH OPEN BUTTON, MEUN BUTTON, DVD DOOR, SPRINGS, WIRES, TAPES AND HIDDEN SCREW HOLD)		330

8.0 SERVICE PART LIST

Mechanical Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
14	996510001518	POWER BUTTON		400
14	996510001596	NAVIGATION BUTTON		410
15	996510001597	SLIDER COVER		420

8.0 SERVICE PART LIST

Accessories Part List:

No.	Service 12NC	Service Description	Photo	Pos. No.
17	996510001509	AC ADAPTOR/12		ACADAPTOR
	996510004261	AC ADAPTOR/05		
18	996510000788	AV CORD		AVCABLE
19	996510001510	CAR ADAPTER		CARADAPTOR
20	996510000790	30GB IPOD HOLDER		HOLDER
21	996510000789	REMOTE CONTROL		RC

9.0 REVISION LIST

Version 1.0 (3141 785 31650)
- Initial release DCP850/12

Version 1.1 (3141 785 31651)
- Update section 8 - Add new AC ADAPTER/05 (996510004261) for DCP850/05

Version 1.2 (3141 785 31651)
- Update section 8 - Add stand alone battery 996510018613 for DCP850